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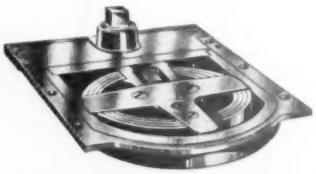

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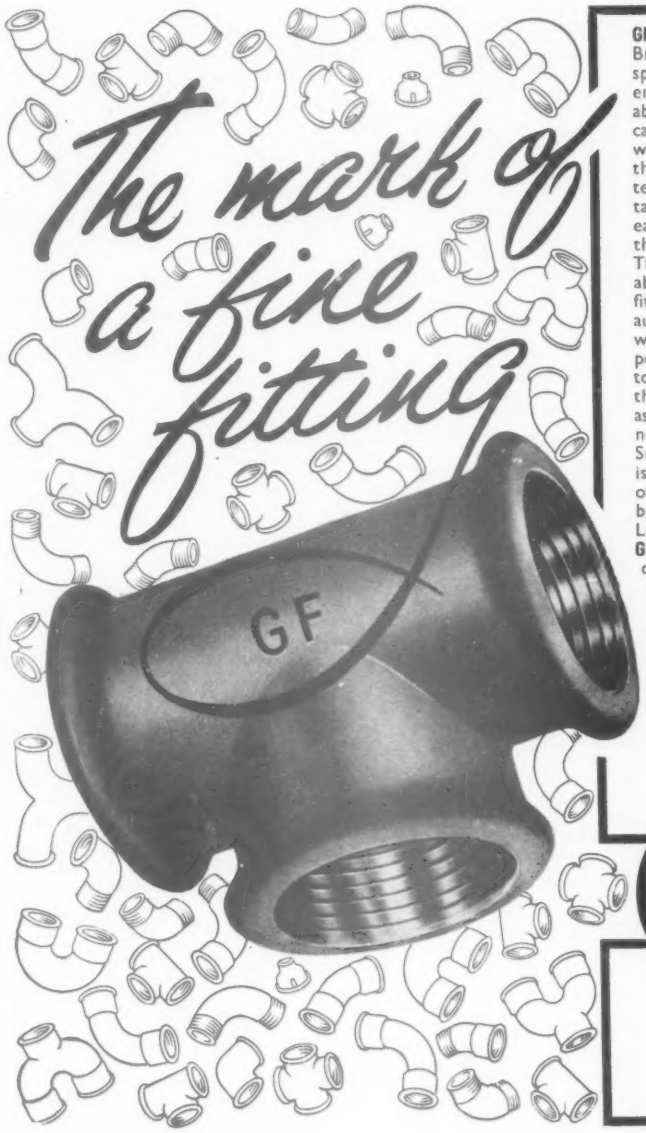

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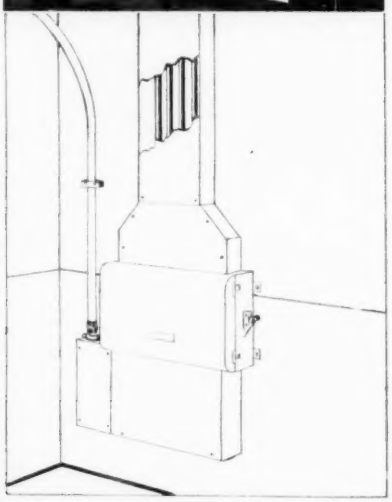

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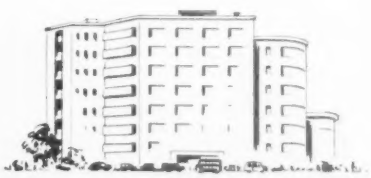

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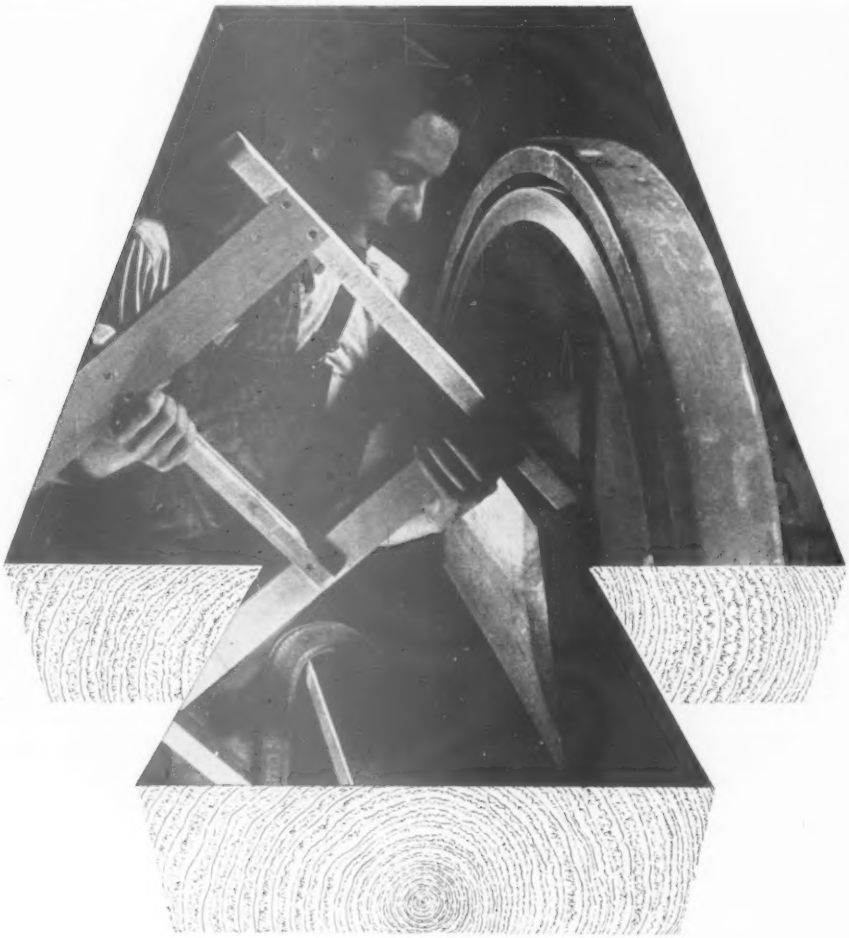

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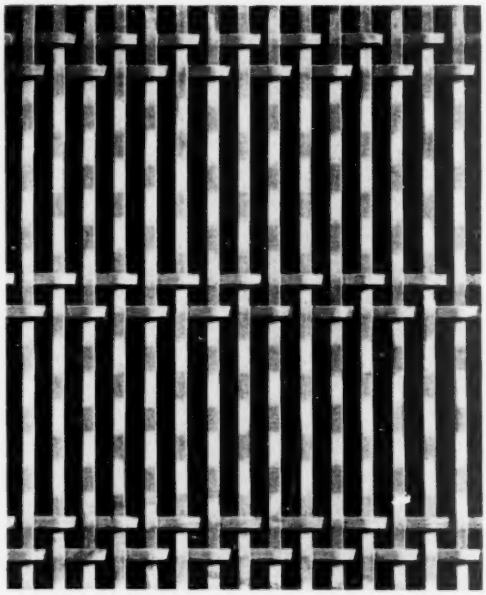

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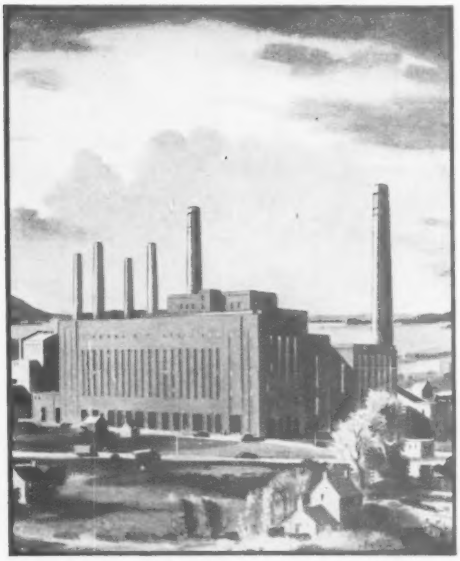

Stourport—an impression of the completed station by Charles Cundall, R.A., R.W.S.

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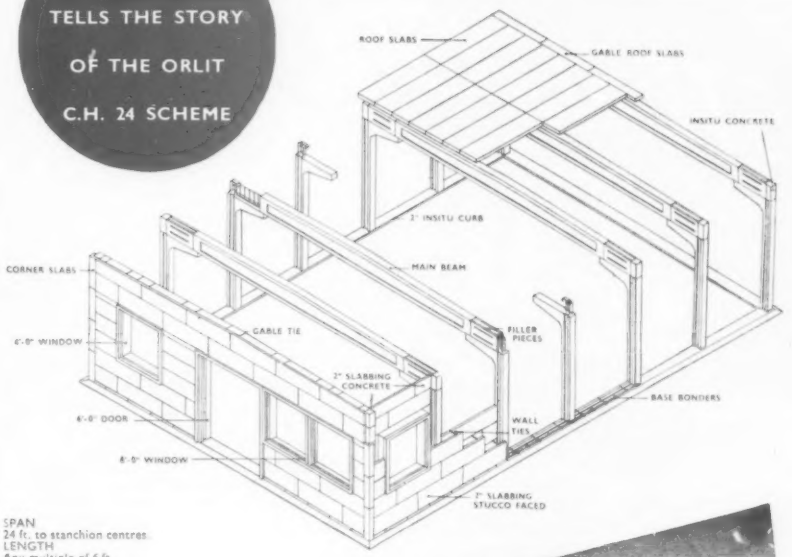

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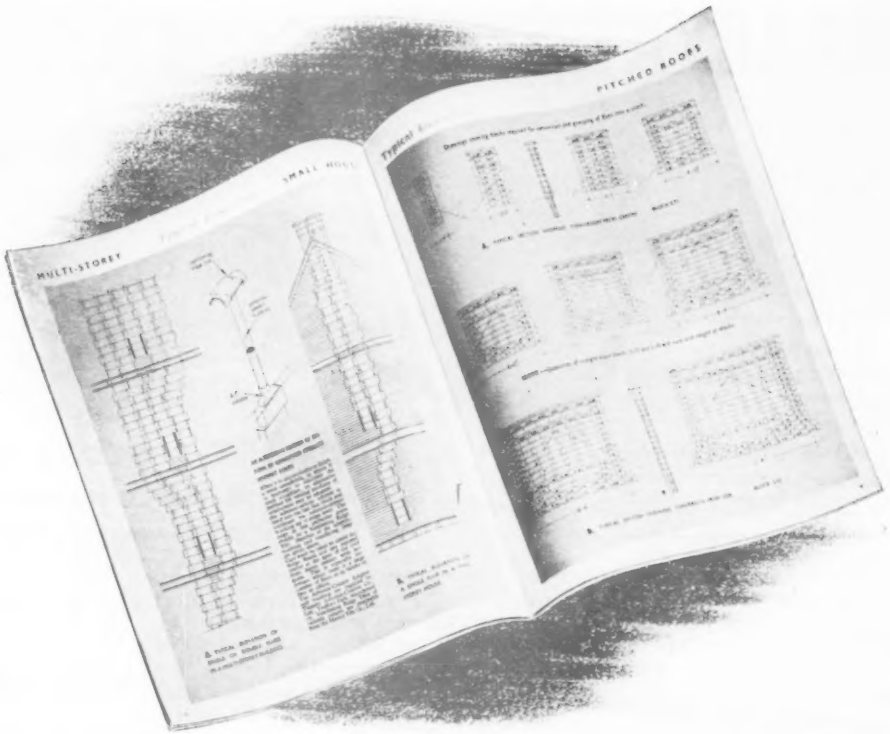

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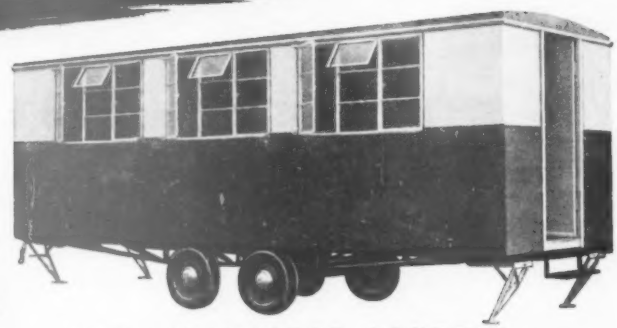

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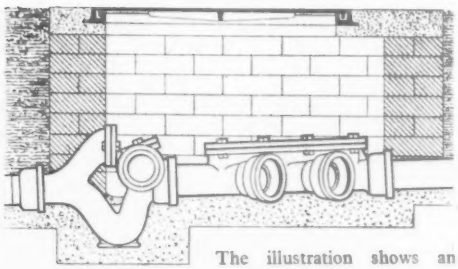

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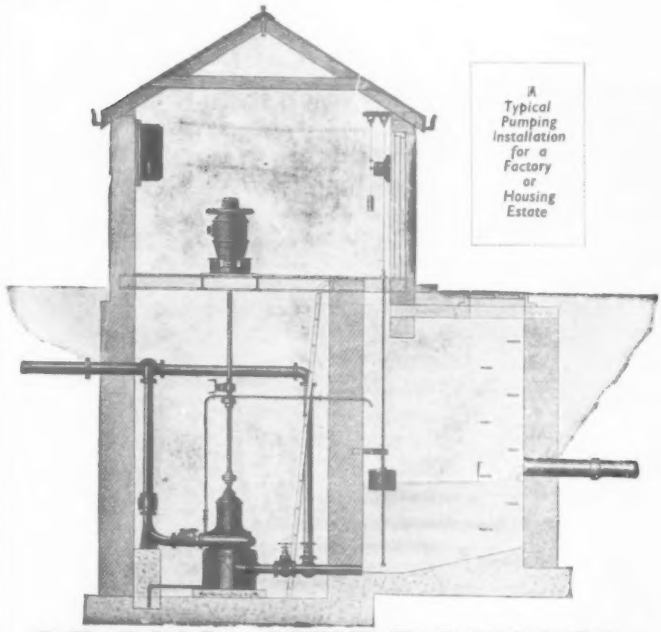

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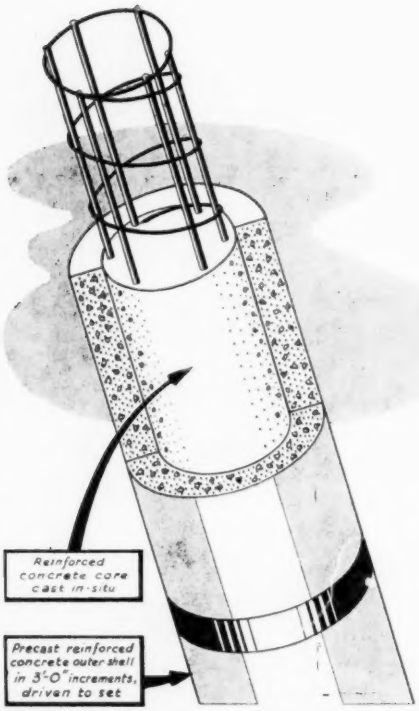

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Vol. 199. No. 4282. THE ARCHITECT & BUILDING NEWS January 12, 1951.

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THE PROGRESS OF PLANNING

SOME two and a half years have passed since the "appointed day" for the operation of the Town and Country Planning Act. In about another six months the outline development plans for the whole of the country will be in the hands of the Minister and the Act will then enter into a fuller period of operation, a phase that will increase in tempo as the first quinquennial revisions approach formulation in 1956. One other milestone can be noted as important in its impact on the life of the country, namely the date for the distribution of the global compensation fund of £300 millions. Doubtless the Treasury will be able, by sinking funds, to meet this proposed distribution; has it, however, decided what effect it will have on present tendencies towards economic inflation? It has been suggested that either delay will have to be imposed or some inflation must be visualized as a result of freeing this not inconsiderable sum into innumerable pockets and purses.

This sort of critical comment on the Act and its working is only one of many that have accumulated during the three years since the passing of the Act. Some have come from professional bodies, which being professional and advisory, presumably have only sectional, if any, axes to grind. Other suggestions of faults and difficulties in the administration of this complex legislation have come from what may be classified as "protective" societies; bodies which are composed of people who own land or buildings, or who have active and personal interests in the terms of the Act and, therefore, more crudely, have some axes to grind, generally financial ones. Some other criticisms have come from individuals of greater or less authority. It is interesting to know—per Dr. Dudley Stamp—for instance, of the continued interest of Sir Leslie Scott (chairman of the Scott Committee, which, with the Uthwatt and Barlow Reports, gave such wide guidance to the framers of the Act) up to the time of his recent death. There are many others, of equal knowledge and experience, who keep in close touch with planning events and progress. Dr. Dudley Stamp's recent weighty letter to *The Times*—which invoked so balanced a leading article in that same paper—provides evidence, if such were needed, of these watching briefs: held in this instance by one who was a member of the Scott Committee.

So criticism of the new planning grows, with the passing of time and the gaining of experience. In general the critics do not necessarily disagree with the planning of town and country; many of them would be the first in advocacy. It is rather the negative sides of the legislation, its uncertainties and delays that concern them—the contradictions between the various sides of Town and Country Planning that worry those with vision. There is no doubt that the rights of departments, including the service departments, established under the Act, often cut across the work of the Ministry of Town and Country Planning, to the detriment of planning as a whole. Also, it is becoming increasingly obvious that the real work—the work of creative planning—is being swamped in all planning offices, both central and local, by the day-to-day administrative tasks and the routine inquiries which demand answers that must agree with the book or which must be indefinitely delayed. It was one of the chief criticisms of the Schuster Report that it made little or no differentiation in the qualifications of planners between those required for research and design and those wanted for administration and the factual examination of routine details.

The fundamental faults, found from experience so far obtained, can be summed up as: insufficient atten-

tion to an "all-over" synthetic planning on a national scale, which implies wide research and the co-ordination of many things now seemingly without relationships; and, on the other hand, too great a concentration of administration at the centre, with too little use of regional knowledge and experience for the purposes of the details of planning.

To bring about some sort of unification of these at present warring factors may mean, as has been suggested by Dr. Stamp, the setting-up of an independent Commission to assist planning in all its aspects, to find balance between departmental actions and requirements and the Ministry's present partial powers under the Act, which, in 1947, brought it into permanent being.

The solving of these problems implies more than a mere administrative overhaul—more than Government internal or departmental action; it requires the unified assistance of all individuals, schools and universities, the use of all available scientific probing of knowledge and ideas. Unless this wider view be taken it is possible that many wrong decisions will be made by an administration that is all too content to work by the book and, in doing so, avoid anything new. It is more than possible that the cost of financing the necessary research for greater co-ordination would be infinitesimal compared with the cost of mistakes which might otherwise be made within the next few years.

When the various Orders and Regulations were in progress of being drafted, the Ministry, very wisely, took the opportunity of consulting a number of professional bodies to obtain their comments, with, in a number of instances, considerable advantage to the clarity and balance of the drafts. Is it not about time that these various bodies were called upon once more to comment on the progress of planning, in the light of experience and second thoughts? To do so might enable amending acts or orders to be formulated and mean considerable enhancement for planning. As it is, these bodies and a number of others, are reduced to the somewhat ineffective methods of sending sporadic (and sometimes, in order to impress, exaggerated) memoranda to the Minister or of writing letters to the newspapers. While we admit the inherent right of all British citizens to indulge in such activities, the latter are not always the best or quickest ways of progressing towards a solution of a given problem.

EVENTS AND COMMENTS

ONE HUNDRED UP

AS I read Abner's copy this week, I found it hard to believe that it was the hundredth occasion, but it seems that it is, for the first column over the pseudonym "Abner" appeared on February 18, 1949.

As a result of this fine record he has the dubious reward of having the first paragraph in this week's column written by an alien hand—that of his grateful and admiring Editor. Looking back down the receding vista of paragraphs studded with wit, sense, prejudice and manly self-revelation, I say in words that he has used so often about others, "Well done, sir!", adding in a low, threatening tone, "And now get cracking on the next hundred."—EDITOR, *A. & B.N.*

THE CURRENT DISTEMPER

IT may be true that there is no epidemic of influenza in the South of England generally, but the disease seems to have hit many people connected with building. All last week inquiries for people were answered by their deputy's assistant's secretary's stand-in. The convenience of such a state of affairs is undeniable and little improvement may be expected while circuses and pantomimes on ice are still running.

OIL FUEL

THE freeing from all restrictions of fuel oil has passed almost unnoticed in the Press. This is particularly odd when we are in the middle of a solid fuel crisis. There is no doubt that most people would like to be rid of the job of stoking their domestic boilers, bringing in the coke and sweeping out the dust. Those who have been to America constantly ask me why we cannot have the type of fully automatic oil burning heating contrivance which is there almost universal. It is possible to buy adapter sets for burning oil fuels in ordinary domestic boilers but no special boiler is made. This has been mainly due in the past to cheap solid fuel, the control of fuel oil, and the scarcity of steel. What will happen now? The British oil refinery programme is enormous. The vast installation at Fawley on Southampton Water will begin production next year, and this plant represents only about a third of the total to be spent on refineries.

These refineries will produce large quantities of fuel oil which must, I understand, under the terms of agreement with the oil producers, be made available for sale in this country. With solid fuel becoming scarcer and oil more plentiful, it is clear that manufacturers of boilers should think and act quickly. The first British firm to produce an efficient domestic oil burning boiler on the American pattern should do well. There is of course one major snag, and that that the American type of thing relies on a basement where it is usually housed in a recreation room. Whole house heating is not popular in this country with people who have never experienced it. Many people pretend not to like radiators in bedrooms. For some reason it is considered to be un-British to raise the temperature of bedrooms above forty degrees in winter. From personal experience I can assure these people that all such ideas are quickly forgotten in a centrally heated house, but unless you have an automatic boiler, and even they have snags, stoking is a bore.

ST. MARGARET'S BAY

A YEAR or so ago I drew attention to a sad state of affairs at St. Margaret's Bay near Dover. It was before the war an attractive place, although scarcely living up—or down—to the press description of a millionaires' playground. Neglected sea defences and the attentions of a battle school reduced the majority of houses at sea level to rubble. The Dover Rural District Council fought for Government support for reconstruction, and work has now started. While congratulating the Council on their tenacity, I hope very much that they are paying proper attention to design and are not aiming to recoup themselves by turning what was one of the few remaining quiet seaside places into what is known as a "popular resort."

CARLTON HOUSE TERRACE

IT is proposed to build extensions to the Foreign Office behind the façade of Nash's Carlton House Terrace. This is a really monstrous suggestion, particularly since it is only nine months since the Government gave an undertaking to preserve the Terrace. Perhaps, however, it is their idea of preservation, for the façade will in fact remain but will be backed with new buildings which will tower three storeys above the existing roof. The last time this sort of thing happened in Carlton House Terrace there was a tremendous row. I seem to remember that a commercial firm not unconnected with the building industry was concerned, and I believe the late Sir Reginald Blomfield was the architect. In spite of the uproar the building went on in a somewhat modified form.

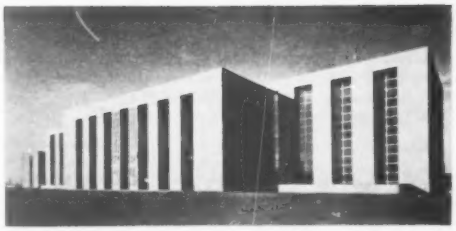
It is incomprehensible that a Government which has spent so much money and care in restoring Nash in Regents Park should so wilfully butcher him in the Mall. Let us stop the scheme.

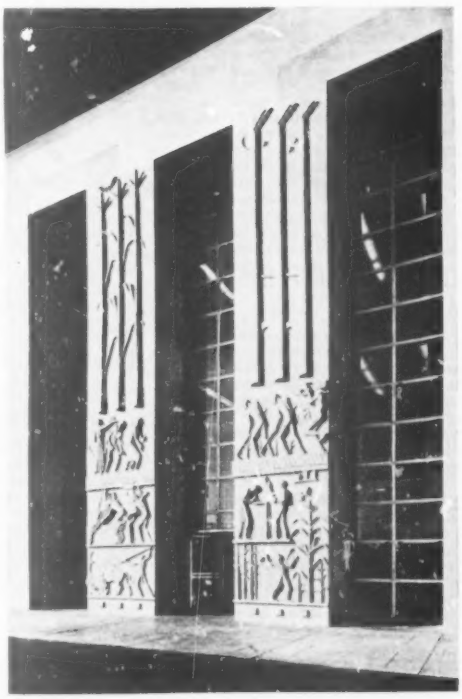
TREES

THAT so often painfully rendered song about trees was written before tree preservation orders were introduced, or the wording might have been somewhat different. Trees now have news value, not on the whole because they are beautiful, an essential part of the landscape or useful, but because of the interpretation of by-laws by people who have never regarded a tree as anything but a potential log fire or something into which their drive at the ninth might be hooked. Like the love of cats and dogs, the love of trees often gets out of hand; on the other hand, when anything like an electric power undertaking gets going trees are mown down without question. It is often sufficient for a row of trees to be planted to commemorate someone or something for the whole lot to be damaged or destroyed by persons who are never caught. Quite unsuitable trees are planted in towns; they grow quickly and interfere with buses and have to be cut back, while tree-lovers howl about mutilation. At some expense and enormous inconvenience large trees are preserved on housing sites and at the same time a landowner closes his woods to the public because the local council has issued a tree preservation order which prevents him, so he says, from doing ordinary maintenance work in his own wood. The order is presumably made to preserve the beauty of the wood for the public, but it appears that the result will be that the wood will become overgrown and the public will not be able to see it. Could anything be more idiotic?

YE OLD ELECTRIC KITCHEN

A READER has sent me a cutting which says that the latest all-electric kitchen to be produced in the United States is being designed to look like a picturesque





Laboratory building for the Corn Products Refining Co. at Argo, Illinois. Architects: Schmidt, Garden & Erickson. The building is in reinforced concrete faced with Indiana limestone. Above: general view; below: detail of entrance.

English Tudor kitchen. I hope very much that this news does not filter through to British Railways.

THE STATELY HOMES

THE *Liverpool Daily Post* has been running a series of illustrated articles on the great houses of the Western Midlands and North Wales. The text does not say a great deal about their architecture and is more concerned with the present financial difficulties of the owners. All the same the articles are to be welcomed because they draw the attention of the public to the existence of fine buildings which, if seen at all, only appear in fleeting glimpses from train or bus windows.

CONCRETE QUARTERLY

THE September issue of this magazine, which I have just received, includes an article on the bridges of

Robert Maillart, an account of an interesting non-traditional house-building system, an article on the use of sheets of water as a final roof covering, and a description with pictures of a pre-cast concrete greenhouse which can be moved from place to place. The sections can, it is said, be moved by hand, although a light crane will do the job more quickly. The greenhouse illustrated was specially designed for the growing of carnations, which require fresh soil every two years. Rather surprisingly the growers find it more convenient to move the greenhouse than the soil.

ABNER

NEWS OF THE WEEK

The Architecture of Transport

An exhibition entitled "The Architecture of Transport," is to be opened by the Right Hon. Lord Hurcomb, G.C.B., K.B.E., and will be on view at the Royal Institute of British Architects, 66 Portland Place, W.1, from February 22 to March 22 (weekdays 10-7, Saturdays 10-5).

The exhibition will be divided into four main sections—Road, Rail, Water and Air, and will show by means of photographs, plans and models the architect's work in these fields.

A large proportion of the exhibition will be devoted to projects in this country but there will also be an interesting selection of material from abroad.

County and Borough Architects' Annual Dinner

The third joint annual dinner of the County Architects' Society and the City and Borough Architects' Society, was held recently at 96 Restaurant, Piccadilly, with Mr. A. G. Chant, President of the County Architects' Society, presiding, supported by Mr. L. C. Howitt, President of the City and Borough Architects' Society.

Approximately 60 members and guests were present, the guests including Mr. J. L. Denman, F.R.I.B.A., Vice-President of the R.I.B.A.; Mr. C. D. Spragg, C.B.E., Secretary of the R.I.B.A.; Mr. G. H. Banwell, Secretary of the A.M.C.; Mr. R. R. Meyric Hughes, Deputy Secretary of the C.C.A.; and Mr. J. Harper Smith, O.B.E., LL.B., Town Clerk of Lincoln.

Bradford Jubilee Dinner

The 50th anniversary dinner of the Bradford City Architect's department was held at the Midland Hotel, Bradford, on January 5, and was attended by the Lord Mayor of Bradford and several former City Architects of Bradford. One of them, Mr. J. A. Fletcher, proposing the toast of "The City of Bradford," declared that in the fifty years of work by the Architect's department, the buildings erected had been of good architectural quality and pleasing to the city. He considered that most notable work to be the Town Hall extension. The Lord Mayor, who responded, was not so flattering. He asked, "If we look at the buildings in our city is there anything really outstanding?" One would not say that the textile factories were things of beauty and joys for ever, he continued, and there were no specially beautiful churches. Even the Cathedral was ordinary from the standpoint of similar buildings throughout the country. Responding to the toast to "Past Members of the Department," proposed by Mr. L. A. J. Heywood, Mr. J. T. Castle, another former City Architect, believed there was much to be said for Bradford's architecture, even in some of the mills. Although they stood simple and stern, they possessed the "elements of architecture." Mr. H. Conolly, his predecessor, also responded. The present City Architect, Mr. W. C. Brown, replying to a toast to his department by Councillor Arnold Walker, chairman of the City Architect's Committee, contended that people had the wrong impression that architecture was a luxury. Of all the arts, architecture was the one most closely affecting the day to day lives of all classes of people.

B.S.I. New Director

The British Standards Institution have appointed Mr. H. A. R. Binney, C.B., to be their new Director and Secretary in succession to the late Mr. Percy Good, C.B.E.

Productivity in House Building

National Building Studies Special Report No. 18, "Productivity in House Building," has just been published for the Ministry of Works by H.M.S.O., price 1s.

The report is the outcome of a Survey carried out in 1949 from investigations made into building contracts during the period August 1947-October 1948 on 160 local authority housing sites, average number of houses per site, 20.

One of the conclusions reached is that the payment of incentive bonuses appreciably lowers man-hours in house building without leading to inferior workmanship.

COMING EVENTS

The Illuminating Engineering Society

- January 17, at 6 p.m. At the Royal Institution, Albemarle Street, W.1. "The Early Years of Illuminating Engineering in Great Britain." Speaker: Dr. J. W. T. Walsh.

Reinforced Concrete Association

- January 17, at 6 p.m. At the Institution of Structural Engineers, 11 Upper Belgrave Street, S.W.1. "Concrete Formwork." Speaker: C. Parry.

Institution of Structural Engineers. Northern Counties Branch

- January 17, at 6.30 p.m. At Neville Hall, Newcastle. "The Aesthetics of Structural Engineering."

CORRESPONDENCE

Mock Arbitration

To the Editor of A. & B.N.

Sir,—May I clarify Abner's comment on p. 663 of your issue of December 22. The flooring spoken of was American maple, which became swollen by damp air circulating beneath it and, when danced on, buckled between the side-walls of the village hall confining it. The *rhythm* of the impulse thus tending to flatten the floor, *chanced to synchronise with the natural (pendulum) period of the walls*, which were made to rock in time with the dance and would, demonstrably, have been thrown right over but for the highly efficient bracing of the roof-principles that, in fact, held the walls upright.

The above entirely stupefying experience is "the cause" in the Arbitration Fiction *Jago v. Swillerton & Toomer*, where scale drawings of the building, and its constructional and mechanical minutiae, are displayed.

I am, etc.,
H. B. CRESWELL.

UNO Building

To the Editor of A. & B.N.

Sir,—*Re* "a Great Debate." Though partially international in significance, the U.N. Secretariat building is without doubt largely a product of the American genius. In so far as I struck one reader as patronising I humbly apologize to Americans—it is the besetting sin of the European when considering things American. If Abner is right I hope I may be a warning to those who venture into the same field.

"Self-consciously clever." It is a great art—the concealment of genius, in the practice of which Abner has achieved remarkable success. Surely, though, his criticism in print of a building he hasn't seen is unforgiveable. The marble end-walls do *not* look like rubber flooring. Can there be an architectural journalist who hasn't discovered that photographs *always* lie?

I am, etc.,
IAN MCCALLUM.

Lead Sheet and Pipe in Plentiful Supply

To the Editor of A. & B.N.

Sir,—I shall be grateful if you will correct the statement in the leading article of your issue dated January 5, 1951, regarding the supply of lead.

Lead sheet and pipe, unlike most other non-ferrous materials, remain in plentiful supply and are free of all restrictions in specification and use.

I am, etc.,
A. C. DRUMMOND.
Secretary and General Manager, Lead Industries Development Council.

R.I.B.A. PRIZES AND STUDENTSHIPS 1951

At a General Meeting of the Royal Institute of British Architects held on January 9 the Council's Deed of Award giving the results of the competitions for the Annual Prizes and Studentships awarded by the R.I.B.A. was read. There were in all 683 competitors. The results of the various competitions are as follows:

THE TITE PRIZE: A Certificate and £100 for the study of Italian Architecture. The subject set for this year was "An Arts Centre." The prize was awarded to "Mouse," Mr. Ronald Leslie Marshall, Student R.I.B.A., Department of Architecture and Building, Southend-on-Sea Municipal College.

THE VICTORY SCHOLARSHIP and £120 for the Advancement of Architectural Education. The subject set this year was "A Repertory Theatre." Awarded to "Dante," Mr. Thomas Frederick Alston Manning, B.A. (Arch.) (Lond.), A.R.I.B.A., Bartlett School of Architecture, University of London.

THE R.I.B.A. SILVER MEDAL FOR MEASURED DRAWINGS and £75. Awarded to "Figaro," Mr. Robert Stanley-Morgan, A.R.I.B.A., Birmingham School of Architecture. A Certificate of Honourable Mention was awarded to "Pterichthys," Mr. Peter Edward Buttenshaw, DIP.ARCH. (Birm.), A.R.I.B.A., Birmingham School of Architecture.

THE ROYAL INSTITUTE SILVER MEDAL FOR AN ESSAY, and £50. Not awarded.

THE OWEN JONES STUDENTSHIP: A Certificate and £100. Awarded to "Mallard," Mr. Maurice William Lee, Student R.I.B.A., Birmingham School of Architecture.

THE BANISTER FLETCHER SILVER MEDAL and £26 5s. for the Study of History of Architecture. The Subject set for this year's competition was "The Development of the Mediaeval Market Square and its Characteristic Buildings." Awarded to Mr. David Plaistow Crease, Probationer R.I.B.A., School of Architecture, University of Cambridge.

THE ALFRED BOSSOM RESEARCH FELLOWSHIPS, for Post-Graduate Research. Awarded as follows:

(1) A Fellowship of £175 awarded to Mr. Leslie Vivian Mitchell, DIP.ARCH., A.M.T.P.I., A.R.I.B.A., School of Architecture, The Polytechnic, Regent Street, London.

(2) A Fellowship of £75 awarded to Mr. John Buckley Bickerdyke, DIP.ARCH. (Manchester), A.R.I.B.A. School of Architecture, University of Manchester.

THE ATHENS BURSARY: £125 for Study at the British School at Athens. Awarded to Mr. Jack Ransom Tolson, DIPL.ARCH., DIPL.T.P. (Leeds), A.R.I.B.A., School of Architecture, Schools of Technology, Art and Commerce, Oxford.

THE ROME SCHOLARSHIP IN ARCHITECTURE, 1950. £375 per annum for two or three years' study and research at the British School at Rome. Offered by the R.I.B.A. and awarded by the Faculty of Architecture of the British School at Rome. Awarded to Mr. Edward Carter (Student R.I.B.A.) School of Architecture, King's College, Newcastle-upon-Tyne.

THE ASHPITEL PRIZE, 1950. This is a prize of books, value £20, awarded to the candidate who, taking the Final Examination to qualify as an Associate, shall most highly distinguish himself among the candidates in the Final Examinations of the year. Awarded to (Name to be announced later.)

THE R.I.B.A. SILVER MEDAL and £10 in books, for Students of Schools of Architecture recognised for exemption from the Final Examination. Awarded to Mr. Frank Shaw, DIPL.ARCH. (Leeds), A.R.I.B.A., Leeds School of Architecture.

THE R.I.B.A. BRONZE MEDAL and £10 in books for Students of Schools of Architecture recognised for exemption from the Intermediate Examination. Awarded to Mr. Frederick Anthony Sargeant, Student, R.I.B.A., Department of Architecture, The Northern Polytechnic, London. A Certificate of Honourable Mention was awarded to Mr. Lionel Lowden Ferguson, Student, R.I.B.A., School of Architecture, Dundee College of Art.

THE ARCHIBALD DAWNAY SCHOLARSHIPS 1950. Three Scholarships of £60 each for the Advanced Study of Construction. Scholarships awarded to : 1. Mr. Kevin Francis Craig-McFeely, Student R.I.B.A., Liverpool School of Architecture, University of Liverpool.. 2. Mr. John Burton Crowther, Student R.I.B.A., Welsh School of Architecture. 3. Mr. William Gilbey Reed, Student R.I.B.A., Liverpool School of Architecture, University of Liverpool.

THE R.I.B.A. HENRY JARVIS STUDENTSHIP. At the School of Architecture, the Architectural Association, 1950. £50. Awarded to Mr. Denys James Hinton, Student R.I.B.A., of London.

THE R.I.B.A. HOWARD COLLS TRAVELLING STUDENTSHIP. At the Architectural Association, 1950. £15 15s. Awarded to Mr. Robin Paul Younger, of Scotland.

THE R.I.B.A. DONALDSON MEDAL. At the Bartlett School of Architecture, University of London, 1950. Awarded to Mr. Michael James Peto, Student R.I.B.A.

THE R.I.B.A. PRIZE FOR ART SCHOOLS AND TECHNICAL INSTITUTIONS, with facilities for the Instruction of intending Architects (£10 in books), 1950. Awarded to Mr. Charles Edgar Mason, Student R.I.B.A., Wolverhampton School of Art and Crafts.

THE R.I.B.A. PRIZES FOR PUBLIC AND SECONDARY SCHOOLS. These prizes are of a total value of £10 10s. They are offered for an Essay of not more than 1,000 words or for sketches or scale drawings of a building or part of a building. The prizes are offered for competition between boys and girls in Public and Secondary Schools. The prizes were awarded as follows:

(a) *Essays:*

(1) A prize of £2 2s. to David Mackay of Douai School, Woolhampton for his essay on The Parish Church of Grouville, Jersey.

(2) A prize of £2 2s. to Ian C. Thornton of Manchester Grammar School for his essay on the Rochdale Town Hall.

(b) *Sketches:*

(1) A prize of £2 2s. to E. F. Hull of Northampton Grammar School, for his drawings of All Saints' Church, Brixworth, Northants.

(2) A prize of £2 2s. to Brian W. Riley of The Grammar School, Batley, for his drawings of Shibden Hall, Halifax.

(3) A prize of £2 2s. to M. J. Tysoe of Northampton Grammar School, for his drawings of All Saints' Church, Brixworth, Northants.

The Competition drawings (with the exception of those submitted in competition for the Alfred Bossom Research Fellowships, The Rome Scholarship in Architecture, the R.I.B.A. Bronze and Silver Medals for students of Schools of Architecture recognised for exemption from the R.I.B.A. Examinations, the R.I.B.A. Prize for Art Schools and Technical Institutions, and the Archibald Dawnay Scholarships) will be on Exhibition at the R.I.B.A., 66 Portland Place, London W.1, from January 10 to February 6, 1951, inclusive, between the hours of 10 a.m. and 7 p.m., Saturdays 10 a.m. and 5 p.m. (Sundays excluded).

The President, Mr. A. Graham Henderson, A.R.S.A., will present the medals and prizes for 1951 and will deliver an address to Students, at a General Meeting to be held at 66 Portland Place, London, W.1, on Tuesday, February 6, 1951, at 6 p.m. and a criticism will be given by Mr. R. E. Enthoven, F.R.I.B.A., of the work submitted.

ANNOUNCEMENTS

The Architectural Association School of Architecture, 36 Bedford Square, W.C.1: The Entrance Examination for Session 1951-52 will be held on March 19, 1951. Closing date for applications (forms obtainable from the Principal), March 1.

*

Mr. Anthony M. Chitty, M.A., F.R.I.B.A., A.M.T.P.I., is to visit Jugoslavia shortly as the guest of the Institute of Jugoslav Science and Culture. Mr. Chitty will take films on building and planning technique and will lead discussions in Belgrade, Zagreb, Sarajevo and Ljubljana.

*

Mr. F. E. Tasker, L.R.I.B.A., and Mr. Norman Royce, A.R.I.B.A., announce that from February 1, 1951, the title of their firm, hitherto designated and known as G. R. Tasker, Sons & Partners will be altered to Sir Robert Tasker & Partners. They will continue to practice from No. 1, Staple Inn, London, W.C.1, Sir Robert Inigo Tasker acting as consultant to the firm.

REPORTS OF THE WORKING PARTY AND ANGLO-AMERICAN PRODUCTIVITY TEAM

THE Minister of Works has over the past seven months been holding discussions with his National Consultative Council on the steps to be taken to give effect to the recommendations of the Working Party on Building and the Anglo-American Productivity Team. The stage has now been reached at which action on the recommendations has either been taken or been put in hand by those concerned; and the present series of meetings with the Council to review progress is therefore completed. Outstanding points will be kept under review. Earlier progress was outlined in a Press statement issued by the Minister of Works on July 26, 1950. The Council last met on December 11, and the position now reached on the recommendations, including points covered in the July Press statement is as follows:

Incentives

Discussions between employers and operatives have been successfully concluded and details of a new agreement on incentives for England and Wales were publicly announced on December 15.

This new agreement not only marks an important step forward towards the higher productivity in building which is essential to the national economy, but also bears witness to the determination of both sides of the building industry to grapple with the problem of increasing building productivity.

It should be possible to obtain more houses for the same amount of capital expenditure; it continues to be the policy of the Government to build as many houses as can be built within the money limit set by the capital investment programme and the available supplies of materials.

Controls

The allocation of structural steel is not free from control and modifications have been made in the Town and Country Planning controls. The building licensing control has also been modified so that the period within which licensed work must be started is not now limited to two months from the date of the licence.

Departmental Responsibility for Building Programme

It has been decided that in present circumstances there is nothing to be gained by alteration of the programming arrangements.

Building Research

Responsibility for sociological and economic research in building was transferred to the Department of Scientific and Industrial Research from April 1, 1950, and almost all aspects of building research are now concentrated in that Department. The responsibility for reviewing the research programme and for conveying the results of research to the industry remains with the Ministry of Works, operating through its Advisory Council on Building Research and Development on which the professions and the industry, together with the scientists are fully represented. These arrangements for securing the association of the building industry with research have been established on what it is believed will prove a satisfactory basis.

Technical Advice on Building to Government Departments

It has been agreed in principle that the Ministry of Works should be responsible for providing technical information on building to Government Departments, in addition to disseminating technical information and the results of building research and development to the industry and professions.

Building Bye-laws and Standardisation of Local Authority Forms

The Ministry of Health, the Ministry of Works, the industry and the professions have concluded their discussions about the operation of building bye-laws in England and Wales, and the industry and professions have expressed satisfaction with the principles upon which the Ministry of Health are conducting their review of the model bye-laws.

Following a meeting between the Ministry of Health and local authority organisations, a detailed examination is being made to determine how far greater standardisation can be secured in the forms of application for bye-law consent issued by local authorities in England and Wales.

In Scotland discussions about the operation of bye-laws and the standardisation of forms are about to begin between the employer and professional bodies.

Standard Forms of Contract

The Departments which had not adopted uniform practice carry out building work of a minor nature and negligible volume, but have been approached with a view to their adopting a standard form of contract, and will do so wherever possible.

Registration in the Plumbing and Electrical Trades

Proposals for the statutory registration of employers and operatives in the plumbing and electrical trades have been drawn up by certain organisations in the industry which are in favour of statutory registration. These proposals have been circulated to the other interested bodies for consideration and comment.

Costing, Programming and Progressing

Leaflets on costing and on programming and progressing, and a booklet on programming and progressing prepared by the Ministry of Works are about to be published. The booklet on costing under preparation by the National Federation of Building Trades Employers will, it is hoped, be published early in the New Year.

Mechanical Aids

A large and successful plant demonstration formed part of the Leeds Building Week in September. Two demonstrations of plant for building are planned for 1951. Plant manufacturers are participating in the British Industries Fair in 1951 on a substantial scale.

The Ministry of Works has arranged with the British Electrical Authority a simpler procedure for meeting the cost of providing electrical power on building sites, which has been welcomed by the industry, in so far as it should ensure the earlier and greater use of electrical power on sites and thus facilitate the use of power driven tools on building operations.

Higher Training for Management

The importance of improved training for management and for supervisory posts in the industry is fully recognised. The industry is eager to get highly qualified men and is pursuing methods of placing and training them. The Building Apprenticeship and Training Council is engaged in a review of the existing arrangements and as a first step has put in hand the collection and co-ordination of information about training for management and supervision, about the courses provided at universities and technical colleges and about the placing of holders of university and higher technical qualifications, with a view to making a comprehensive report.

Indenturing of Apprentices

The two sides of the industry are considering whether there is a case for altering the present periods of apprenticeship.

Flexibility of Craft Training

There is already a measure of interchangeability between crafts, particularly in rural areas, but the industry does not consider that it is in general desirable to train boys in more than one craft during the apprenticeship period.

Professional Training

The Royal Institute of British Architects regard the practical training of architects on the site and in site offices as most important and are working out a scheme for such training in consultation with both sides of the industry.

Pre-Planning

The Royal Institute of British Architects and the National Federation of Building Trades Employers are taking measures jointly to impress upon building owners the importance of deciding their requirements at an early stage and of avoiding variations while the contract is in progress.

Management of Building Operations

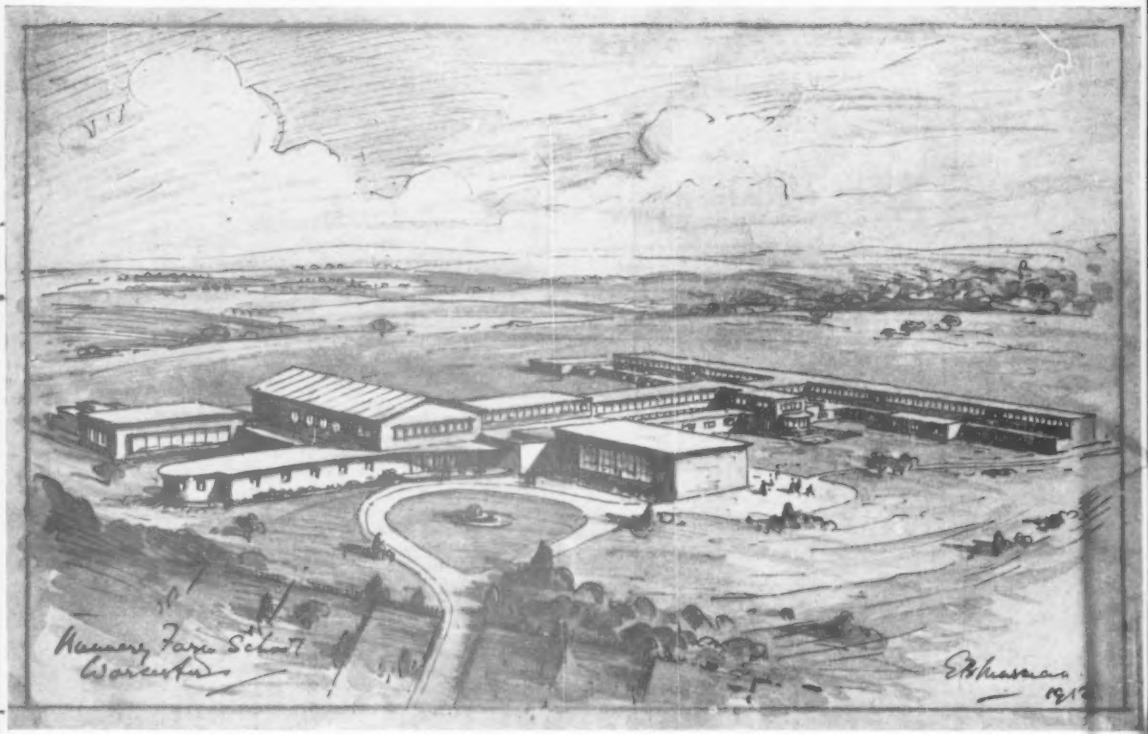
The Practice Committee of the Royal Institute of British Architects have considered a suggestion that a programme chart might be included in contract documents, but concluded that while the greater use of programme charts was eminently desirable in the interests of efficient organisation, it would not be practicable or desirable to include them as part of the contract.

Professional Status of Quantity Surveyors

The Royal Institution of Chartered Surveyors are discussing with the National Federation of Building Trades Employers the suggestion that the Institution's rules should be modified so as to enable Surveyors employed by contracting firms to achieve or maintain professional status.

American Plumbing Practice

A technical examination has been conducted of American practice in plumbing. A memorandum for publication in the Trade and Technical Press setting out the main features of good plumbing practice and giving instruction on their application is being prepared



NUNNERY FARM SECONDARY MODERN SCHOOL

for the County of the City of Worcester Education Committee

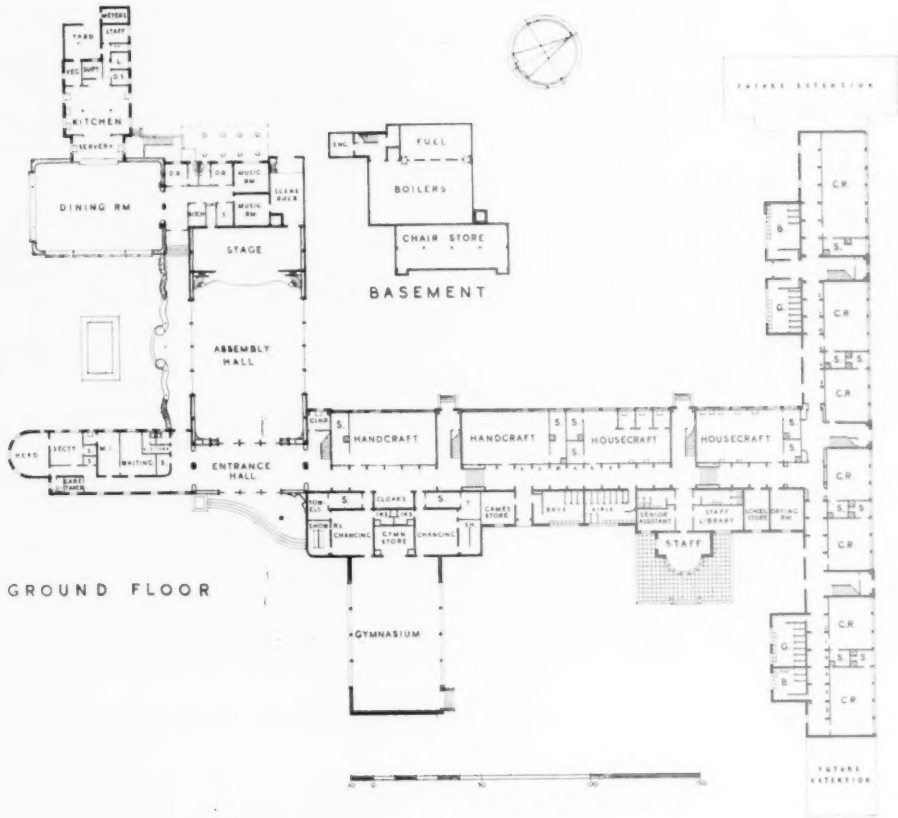
architect: E. B MUSMAN, B.A., F.R.I.B.A.

EARLY in 1949, the County of the City of Worcester Education Committee invited Architects to submit designs in competition for a new Secondary Modern School to be erected on a site off Spetchley Road, Worcester. The school was to be a two-form Entry in the first instance for Boys and Girls for ages 11-15 for the accommodation of 320 pupils, ultimately to be extended to accommodate the additional age group when the leaving age is raised to 16. At some later date it was intended to erect a separate Girls' School for 320 pupils on the site adjoining with identical accommodation.

After the award had been made a change in policy took place and the author of the winning design, Mr. E. B. Musman, B.A., F.R.I.B.A., was asked to prepare a plan for an entirely fresh scheme for a four-form Entry school for Boys and Girls mixed, ages 11-16 to accommodate 600 pupils, 300 boys, 300 girls, thus abandoning the idea of providing two separate schools and embodying the total accommodation in one mixed school. A new layout was accordingly prepared on these lines which had to be further amended to comply with Circular 209 which had just come into operation. The accompanying plans and sketches show the final scheme. Building operations are to commence during the first quarter of this year.

Attention is drawn to one or two interesting features in this plan.

1. The main consideration in siting the classrooms has been the view. These have been planned along the line of contours to the North-East overlooking Nunnery



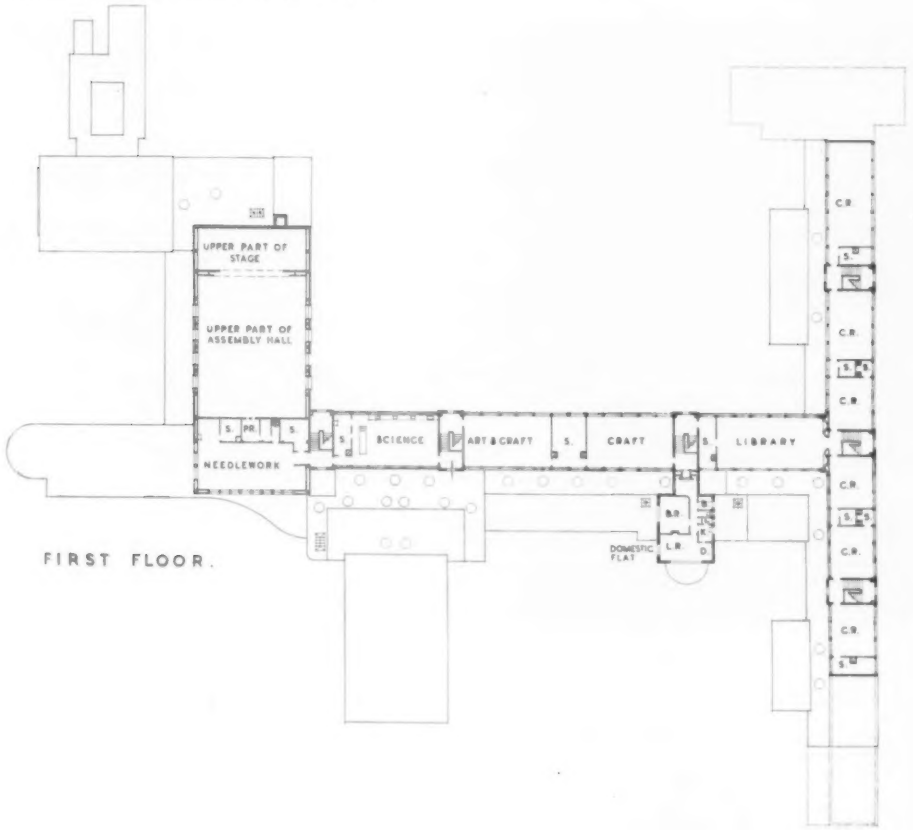
Wood. They are also on two floors. Consideration, however, had to be made for as much direct sunlight in the classrooms as possible. This has been attained by omitting the connecting corridor on the first floor and providing direct clerestory lighting from the South to the ground floor classrooms and full window area to the South for the first floor classrooms, each pair of classrooms on the first floor being served by a separate staircase.

2. Another interesting feature is the separation of the Headmaster and the Medical Inspection Officer from the rest of the teaching staff. The offices of the Headmaster, Secretary and Medical Inspection Officer are sited close to the main entrance hall but off the main circulation of the School. The Staff and Senior Teachers' Rooms are in a group in a central position off the main spine corridor. This enables the Staff to mingle freely with the pupils, encourages contact and removes the feeling of awe felt by the pupils on approaching the Staff Quarters when they are isolated from the main buildings and activities.

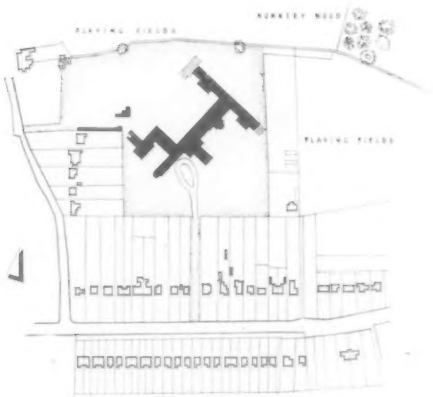
3. As required by Circular 209, provision has been made for hanging cloaks in the corridors and circulation spaces. Sanitary accommodation is at the revised scale and distribution in three blocks, each with one lavatory for each sex throughout the building.

4. The Assembly Hall, Gymnasium and Dining Room have been planned off the main entrance hall and these units can be used for evening and outside activities without interfering with the school activities.

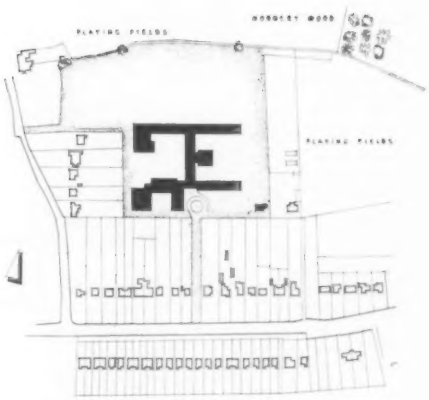
For the purpose of comparison, block plans showing the layout (entirely a single storey) as submitted in the Competition and the finalized layout are illustrated.



FIRST FLOOR.

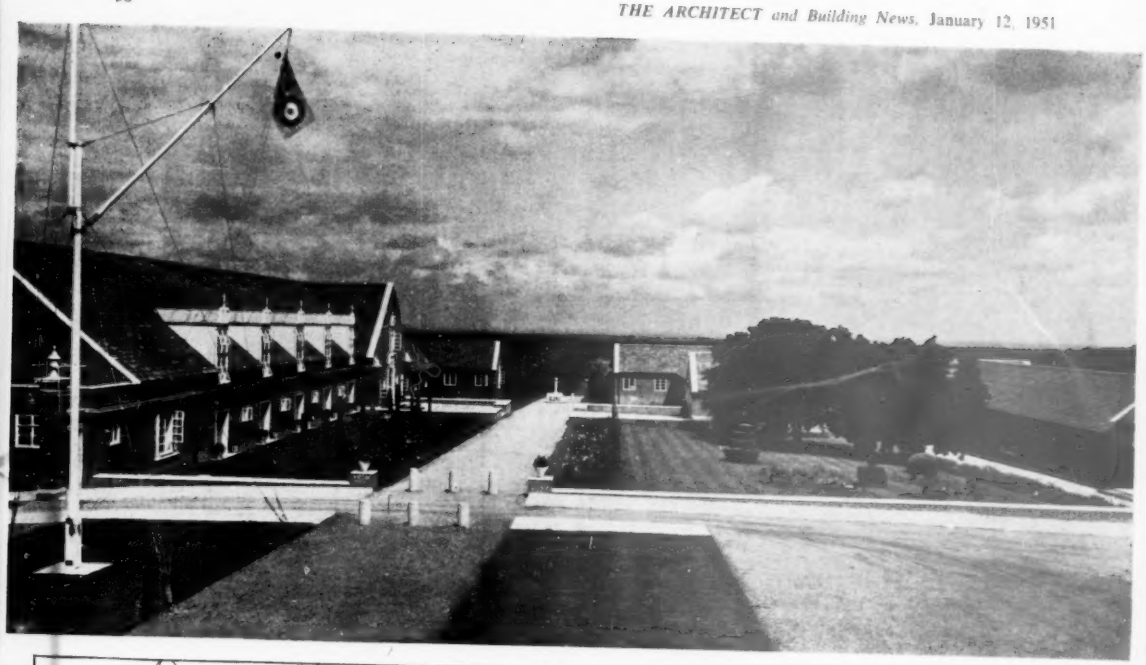


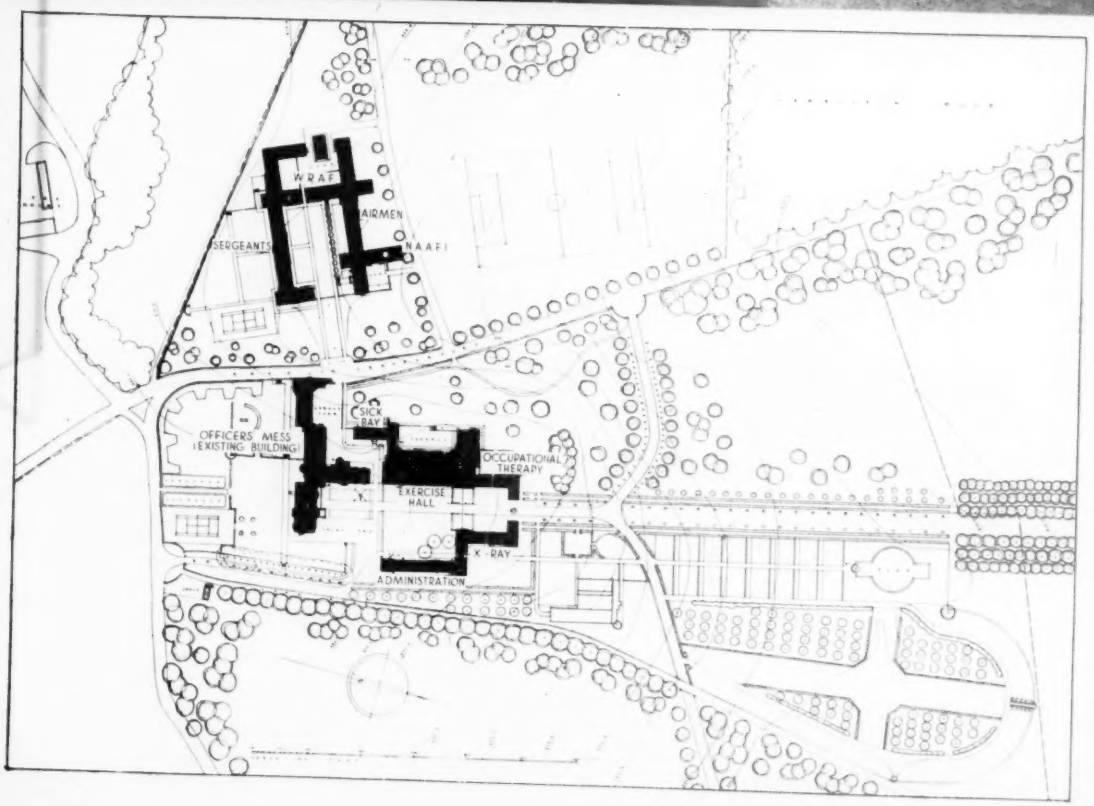
The finalised layout



The competition layout

NUNNERY FARM SCHOOL, WORCESTER




W.R.A.F.
AIRMEN
SERGEANTS
N.A.A.F.I.
SICK BAY
OFFICERS MESS (EXISTING BUILDING)
OCCUPATIONAL THERAPY
EXERCISE HALL
X-RAY
ADMINISTRATION

R.A.F. REHABILITATION CENTRE, HEADLEY COURT

designed by ARTHUR W. KENYON, C.B.E., F.R.I.B.A., M.T.P.I.

IN the medical science of rehabilitation, the psychological factors of environment and of cheerful surroundings play a major part.

Rehabilitation has been described as "the recovery of the person by his own efforts" and the first essential of any Rehabilitation Centre is to create an atmosphere of self-determination and the will to succeed among the patients.

There are Civilian Rehabilitation Centres, especially those for the Miners' Welfare, but this is the first R.A.F. Rehabilitation Centre to be built as such and the conditions were entirely different.

The scale of accommodation for living quarters, administration, etc., was laid down by normal Air Ministry Entitlement, but as far as the Rehabilitation buildings proper were concerned, the whole of the scale had to be worked out in conjunction with the doctors, acting on their experience.

It was felt by the Medical Authorities that the best results would be obtained by utilising a "country house" atmosphere. Headley Court was selected after inspecting many properties. It comprises a large Jacobean styled house set very pleasantly in its own grounds extending over 80 acres. This estate, together with £150,000 towards the cost of completing the Centre, was presented to the Air Ministry by the Chartered Auctioneers' and Estate Agents' Institute, from their R.A.F. Pilots' and Crews' Fund which raised over £384,000 as a tribute to the deeds of the Royal Air Force in the Second World War.

Planning

Mr. Arthur Kenyon was called in as the architect to act on behalf of the Ministry of Works, the official architects. The architect's terms of reference was for a Rehabilitation Centre for aircrew only (officers and sergeants) and the design fell rapidly into five sections: (1) Officers' Mess for 50 officer patients and 15 officer staff; (2) Sergeants' Mess for 50 sergeant patients and 10 sergeant staff; (3) Living accommodation for 75 airmen staff (including both men and women); (4) An Administration "Unit", and (5) A Remedial Block.

The existing house set a background for the new buildings and dictated to some extent their grouping and character which had to harmonise with it, to preserve the feeling of the country house atmosphere and to avoid any feeling of a barrack or hospital nature.

Serving conditions and administration played some part in formulating the plan. For instance, during actual remedial periods all patients are treated alike and no "rank" is observed, but domestic conditions vary and the traditions of each Mess had to be maintained.

It was decided to use the existing house as an Officers' Mess with a Remedial Block and small Administration Block adjacent to it. A short distance to the west a further block was sited with a Sergeants' Mess and Airmen's Quarters forming a quadrangle. It was felt that the separation of living quarters from work and treatment was essential and that a short walk between the two would do the patients no harm.

Officers' Mess

There were sufficiently large rooms on the ground floor of the existing house to fulfil reasonable requirements of an Officers' Mess. Space was found in the basement (part ground floor due to the slope of the ground) for the kitchens and on the first and second floors all the rooms were used for bedrooms.

The bar overlooks the racquets court which formed part of the original house.

THE REMEDIAL BLOCK

The Remedial Block is the "heart "of the Centre and patients spend most of their day here. The main medical requirements were for a large Exercise Hall, a Remedial Bath and a Physiotherapy and Occupational Therapy Department, en-suite with each other (see plan page 40). As no one minds being seen at work or at games and everyone is interested in everyone else's activities, the ideal planning of this block was as open as possible.

Exercise Hall

This is the working centre of the Remedial Block and has to suit all manner of different activities. A number of classes are held here at the same time under specially trained P.T.I.s. There is no gym. equipment supplied as the work is of the remedial exercise type rather than the more formal exercises done in a gym. The S.M.O. and P.F.O. have their offices overlooking this hall and are able to keep an eye on all the activities that go on there.

The Hall will also be used for social activities and has two dressing rooms at the back for stage shows. The stage is equipped with electrically operated curtains and has been wired for some stage lighting. Provision in the wiring has also been made for 16 mm. cinema equipment.

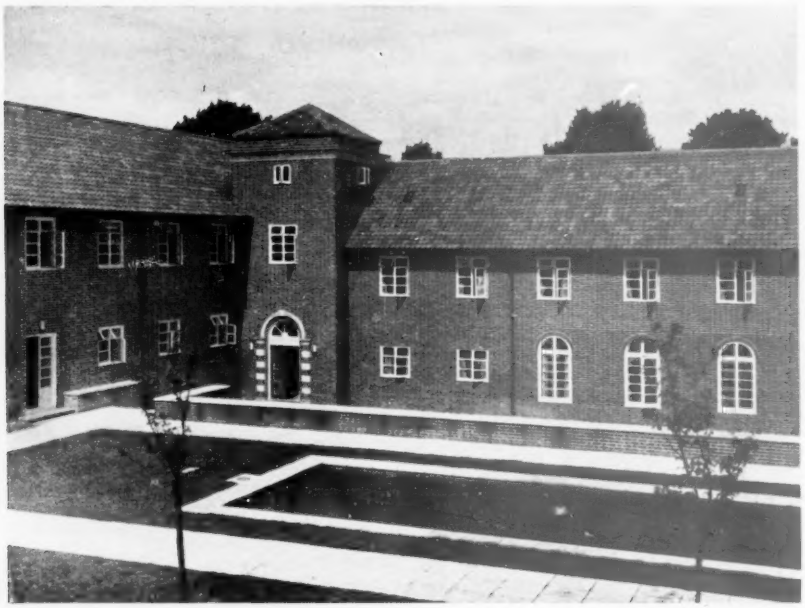
Remedial Bath

The second method of rehabilitation is exercising patients in a remedial bath (pages 40 and 43). Here, assisted by the buoyancy of the water, limbs can be moved by the patients to a greater extent and more easily than out of the water.

Patients may stay in the bath for periods of half to one hour at a time and more than once in a day. The temperature of the water has therefore to be kept at 95 degs. Fahrenheit. To prevent condensation on the surroundings, the walls are in fair face brickwork and the floor and ceilings are panel heated. the ceiling is finished in special plaster in addition.

Most of the bath is less than four feet deep, but the deep end is six feet, so diving and swimming may be indulged in by those patients able to do so. Two level platforms run across the bath (see section) and are used by patients for practising walking. These platforms are picked out in coloured tiles.

The changing rooms have been planned completely open to the bath. It was felt unnecessary to provide separate cubicles as the Centre is designed for men only.



The X-ray Wing and Administration Block (on right). Below is the Accommodation Block viewed across the main courtyard

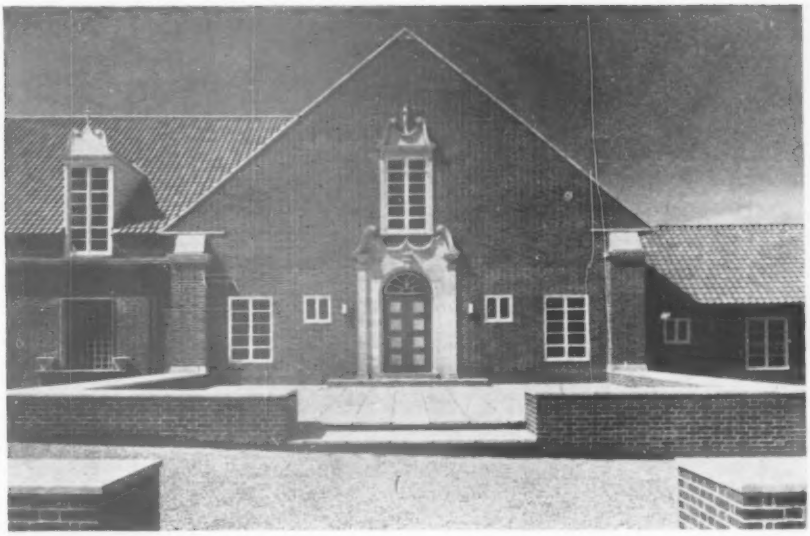
Another reason is that cubicles would have had to be large in order to be suitable for patients who have not full control of their limbs.

Paved Games Area

Outside the Remedial Bath and opening into it is a large terrace 100 ft. x 40 ft., the same size as the Exercise Hall, where in summer, all the activities normally held indoors can be transferred. For more strenuous exercise a general recreation area with football pitch is sited just across the road.

Physiotherapy

The major part of the treatment side of the Remedial work is physiotherapy. The medical authorities were strong in their wish not to have small cubicles and one



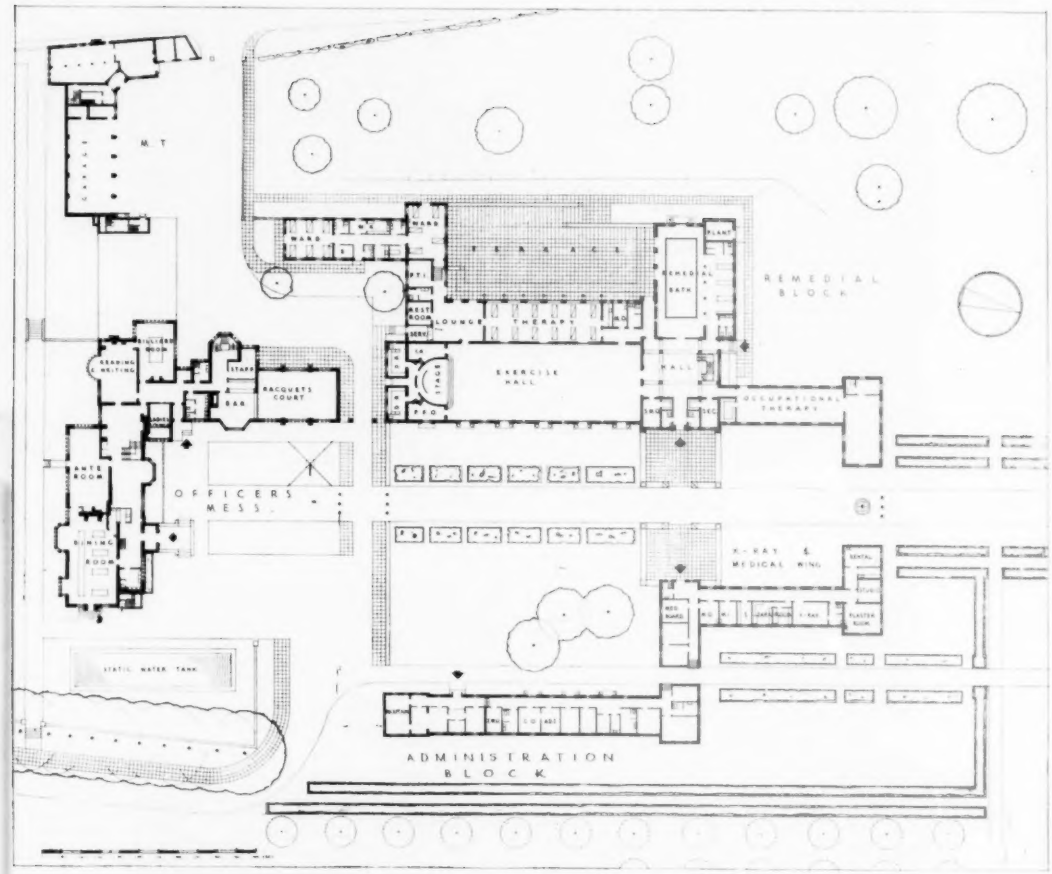
The Remedial Block main entrance. Below is the terrace outside the Remedial Bath which can be used as a paved games area

large room has been provided for the purpose, between the terraace and Exercise Hall. Mobile screens or curtains are used for patients who must be screened.

Occupational Therapy

This section has been planned in two large adjoining rooms approached from the Entrance Hall. The section can be segregated so that patients or staff can go there in their own time. The only fixtures are a large number of power plugs to run lathes, drills, etc. Such things as carpenters' benches, lathes, looms, leather working tools and benches form part of this department, and their provision has been left to the medical authorities.

(Continued on page 42)



The Remedial Bath

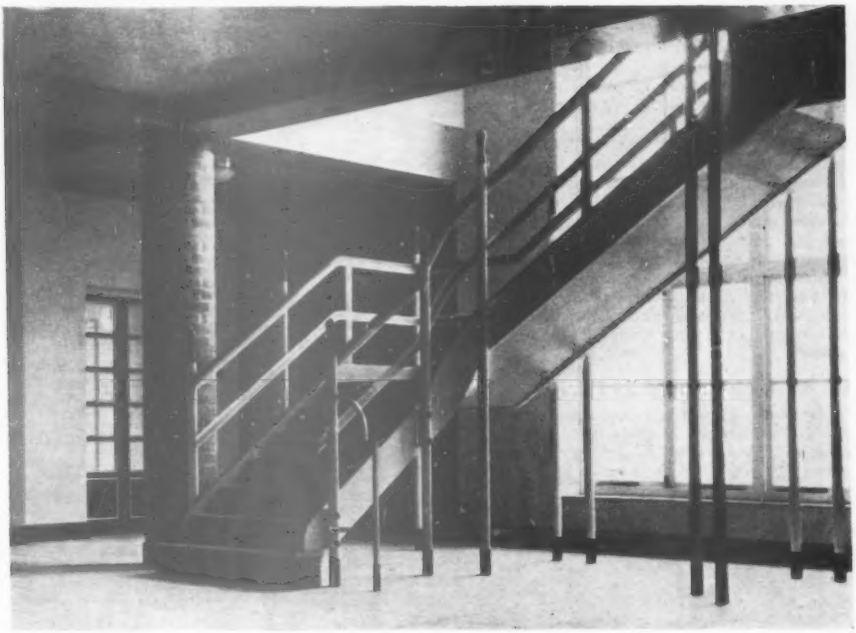
R.A.F.

REHABILITATION

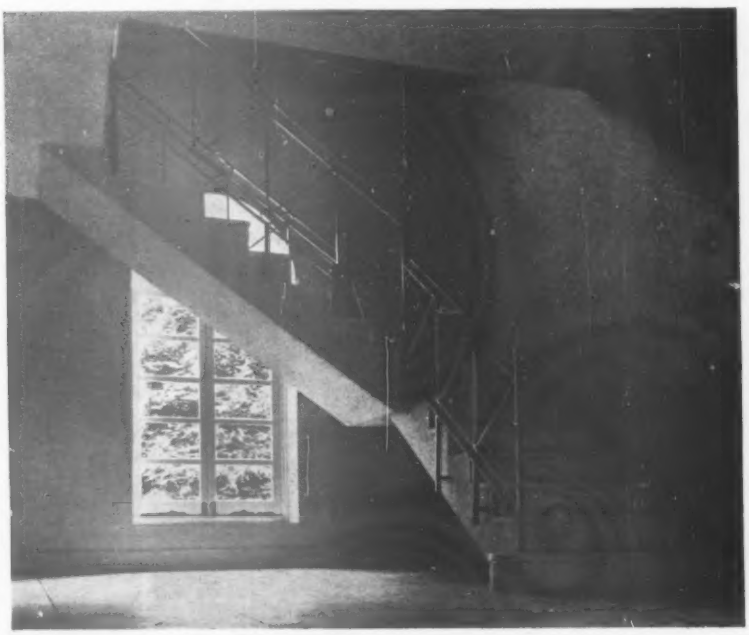
CENTRE

HEADLEY

COURT



Patients are encouraged to negotiate such things as steps and stairs as part of the treatment to fit them for a return to normal life. Above is the staircase to the first floor hall, Remedial Block; below is the main staircase, airmen's quarters



architect:
ARTHUR W.
KENYON

Lounge and Rest Room

These are used for "breaks" in remedial treatment or when patients have to rest—waiting for a physiotherapy appointment for instance—and prevent patients having to return to their living quarters.

Sick Bay

Attached to the Remedial Block but not part of its planning are the sick quarters. They are intended only to be used by the patients who either need special attention such as assistance in dressing or who have developed some complaint such as 'flu, making segregation from others desirable. It would be most undesirable to move such patients to another R.A.F. Sick Quarters as then their rehabilitation treatment would suffer. By using the Sick Bay their rehabilitation can continue at the same time as their other trouble is cured.

The X-ray and Medical Wing

This wing contains accommodation for X-ray and Clinical Photography and a medical section, in direct charge of an M.O. who also controls the normal station M.I. Room and a small dispensary. By separating it from the Remedial Block, this wing is kept free from the general activities but is near enough for easy access by the patients.

The Administration Block

This block consists solely of the normal offices for airmen's papers, supervision, etc., with one important addition—namely, the Reception Room. Here all the incoming patients are received, made to feel at home and from here are taken round the various sections.

Accommodation and Furnishings

Accommodation for sergeants and airmen is based on the R.A.F. synopsis and no additional rooms or space have been needed for rehabilitation purposes.

The Air Ministry decided at a fairly early date that the standard of furnishings generally should be as high as possible within the limits of normal entitlement. Furniture and furnishings in keeping with the design of the buildings were obtained by the Ministry of Works Supplies Section working in conjunction with the architect.

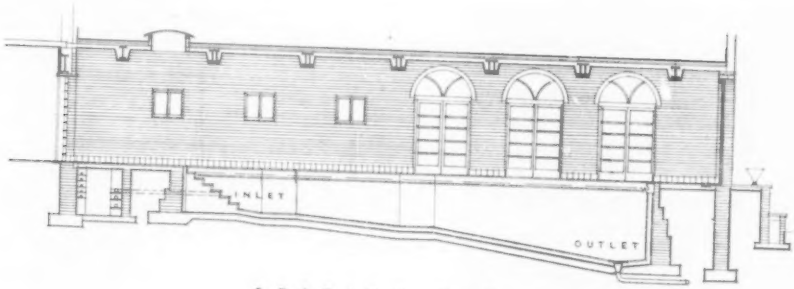
One large room forms the occupational therapy department

GENERAL CONTRACTOR:
JAMES LONGLEY & CO. LTD.

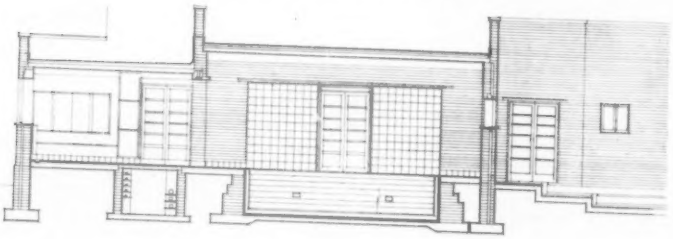
SUB-CONTRACTORS AND SUPPLIERS:

Bricks: Henry J. Greenham Ltd.
Commemoration Plaque: Heal & Son Ltd.
Cooking Equipment: Ministry of Works Bulk Supply.
Electrical Work: The Phoenix Electric Co. (London) Ltd. (Main Contract); T. Clarke & Co. Ltd. (Officers' Mess); Falk Stadelman & Co. Ltd. (Special fittings in Officers' Mess).
Flagstaff: J. W. Gray & Son Ltd.
Floors: F. Bradford & Co. Ltd. (Hollow Tile); R. W. Brooke & Co. (Wood Block and Strip to Exercise Hall).
Flat Roof Covering—Bituminous Felt: Permanite Ltd.
Furnishing: Ministry of Works.
Gates—Collapsible to N.A.A.F.I. Bar: Bolton Gate Co. Ltd.
Heating: William Freer Ltd. (Hot and Cold Water); Benham & Sons Ltd. (Panel); The Pulsometer Engineering Co. Ltd. (Remedial Bath Filtration Plant).
Ironmongery: Ministry of Works Bulk Supply.
Joinery: James Longley & Co. Ltd.
Lifts (in Officers' Mess): Aldous & Campbell Ltd.
Metal Work: Light Steelwork Ltd. (Balustrades); T. Crowther & Son (Main Entrance Gates).
Paint Colours in main rooms: Thos. Parsons & Sons Ltd.
Roof Tiling: Henry J. Greenham Ltd.
Stonework: Bath & Portland Stone Firms Ltd.
Structural Steel: Matthew T. Shaw & Co. Ltd.
Suspended Ceiling to Exercise Hall: Sundeala Board Co. Ltd.
Tiling to Swimming Bath and Floor: Carter & Co. (London) Ltd.
Terrazzo: Malacarp Terrazzo Co. Ltd.
Wardrobes: Plysyl Formwork Ltd.; John Sadd & Sons Ltd.
Window Controls (Exercise Hall): Arens Controls Ltd.

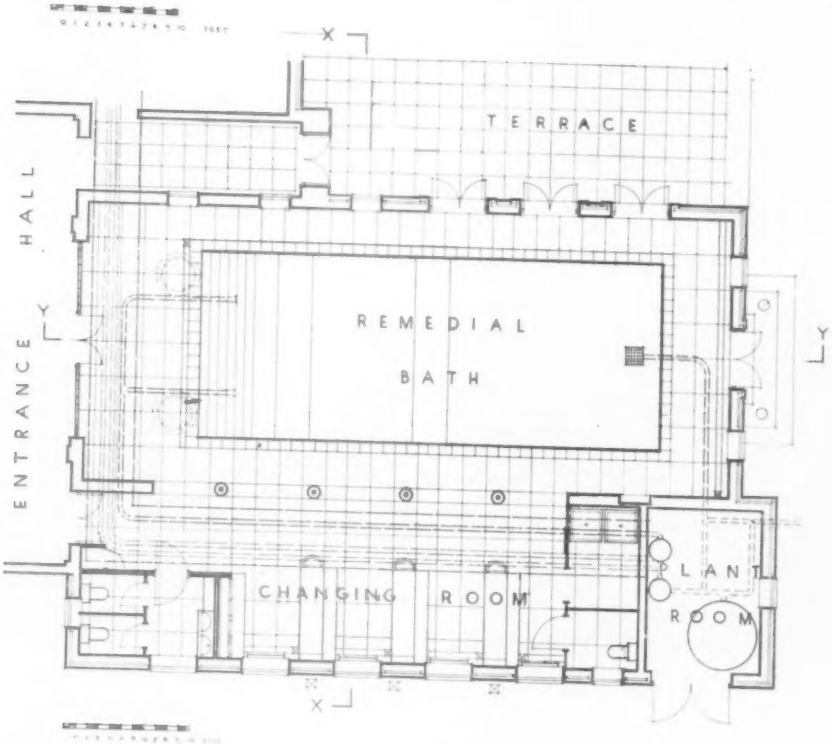
R.A.F.
REHABILITATION
CENTRE
HEADLEY COURT



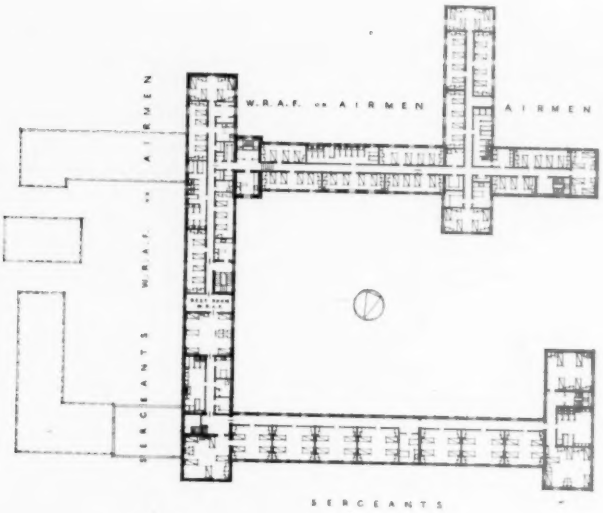
SECTION Y-Y

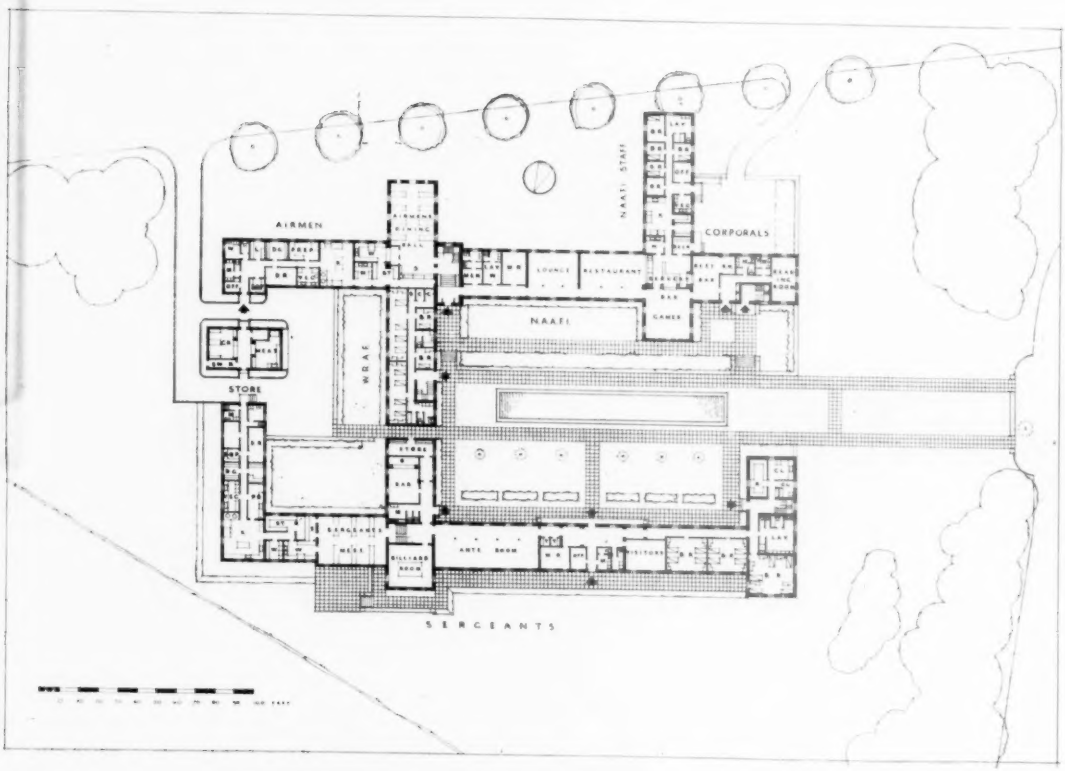


SECTION X-X



architect: ARTHUR W. KENYON





Plans of the Accommodation Block

Sergeants' Mess Dining Room

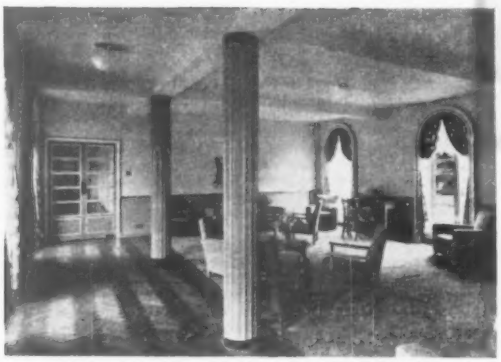
Sergeants' Mess Anti-Room

Airmen's Dining Room

N.A.A.F.I. Restaurant

Crown copyright

Sergeants' Mess Main Entrance Lobby



N.A.A.F.I. Lounge

R.A.F. REHABILITATION CENTRE, HEADLEY COURT

THE ROME SCHOLARSHIP

A Review of the conditions governing this scholarship during the years 1913-1951

THE Rome Scholarship in Architecture is the highest award in the field of architectural design that can be gained by any student.

The award has been made on twenty-two occasions. The names of the majority of the winners soon become well known in the architectural world; not for the mere fact of winning the scholarship, but because of the opportunities for study the award makes available to them.

The successful competitor travels to Rome and the British School at Rome becomes his headquarters for the next two years.

The object of this award is to enable a student of conspicuous talent, by serious study in the atmosphere of a great art centre, to gain a thorough knowledge of the principles underlying the work of masters of architecture of all periods, and by that means to prepare himself for original work in architectural design.

The advantages of a period of post-graduate study amongst such unique surroundings overflowing with wealth of historic material, as is to be found in Italy, cannot be measured. In addition, it provides the scholars with an opportunity of obtaining a wider vision and broader culture. The fundamental difference between a post-graduate course of study with members of the same profession and study with other students who are studying painting, sculpture, history and archaeology, is that the latter assists the various students to obtain an appreciation of their own studies against the wider background of the arts in general.

With this background, one can fully appreciate that it has materially influenced the architectural capabilities of the scholars who have passed through the British School.

The original scheme was established in 1913 by the Commissioners of the 1851 Exhibition on the basis of proposals put forward by the R.I.B.A. Few members of the architectural profession realize how much care, thought and attention has been devoted by the Faculty to ensure that the conditions governing the award should be drawn up so as to produce the best results. The history of the changing conditions illustrates the Faculty's desire in this respect.

The original scheme established in 1913 consisted of three stages. The first stage was an open qualifying competition. A special subject was set and candidates were requested to submit solutions on a double elephant sheet before a specified date.

At the second stage, another special subject was set and drawings had to be submitted within two months. No *en loge* competition was undertaken. This stage was open to candidates chosen from the qualifying competition, winners of certain prizes and nominees of certain bodies.

The third stage, or final competition, was entered by 10 candidates selected from among those submitting designs in stage two. This final competition consisted of an *en loge* in London from 10 a.m. on a Monday until 1 p.m. on the Saturday of the second week following. A sketch design was executed on the first day and to this design they had to adhere, in the main, in their final drawings.

The winner who successfully fulfilled these arduous conditions of 1913 was Mr. H. Chalton Bradshaw.

The Faculty decided that this triple scheme was too complicated and in 1914 they reduced the competition to two stages.

The stages were similar to the 1913 competition—namely, that a subject was set and anyone was free to compete. Drawings had to be submitted by a certain date together with a certificate that the work was the candidate's own, and had not been executed as part of a school course.

Ten candidates were chosen from this competition. A new subject was set and the competition was held for three weeks *en loge* in London.

This scheme operated until 1922 and on the three occasions that it was awarded Mr. P. D. Hepworth was the winner in 1914, Mr. Frederick O. Lawrence 1920, and Mr. S. Rowland Pierce in 1921.

In 1922 the Faculty decided that this scheme was putting too much emphasis on the open competition, and not enough on the final. They also considered that it put too high a premium on sheer draughtsmanship. The scheme was revised for the third time.

This new scheme, drawn up in 1922, again consisted of two stages with firstly a preliminary competition. Candidates were admitted to this preliminary competition by the Faculty after their qualifications had been carefully examined. The competition itself lasted thirty-one days, of which the first twelve hours were spent *en loge* at an approved centre. The sketch design produced at the *en loge* had to be followed, in the main, to the final drawings. The final drawings themselves had to be produced by candidates in their own time and place within thirty-one days.

Ten candidates were chosen from the preliminary competition and allowed to enter the second stage. A new subject was set and the ten competitors spent thirty-six hours *en loge* in London producing their sketch designs. The final drawings, which had to conform to the sketch, had to be produced within twelve weeks by the candidates in their own time and place.

To determine the suitability of candidates who enter the competitions, each applicant was required to submit a portfolio of his drawings. Those who had already competed—up to a maximum of three—or were winners of certain other prize awards of established repute, were excused this requirement or were allowed to enter the competition direct.

It is interesting to learn that a suggestion was made, when the conditions were being reconsidered in 1922, to the effect that there should be two *en loge* tests for the preliminary competition. The first test would stress elevation and the second plan. It is difficult to appreciate the reasoning behind this suggestion. It was, however, rejected because of the advantage it would have given to candidates who were exceptionally able draughtsmen or colourists but who were incapable of working out their designs in detail.

It was not until 1929 that the Faculty made a further change in the conditions. Between 1922 and 1929 the winners were: 1922—Professor Stephen Welsh, 1923—Professor R. A. Cordingley, 1925—Mr. G. A. Butling, 1926—Mr. A. D. Connell, and in 1927—Mr. R. P. Cummings.

Since 1928 the R.I.B.A. undertook, under certain conditions, to guarantee the sum necessary for the Rome Scholarship in Architecture. As a result of this undertaking, the R.I.B.A. Henry Jarvis Studentship at the British School at Rome, founded in 1913 by the R.I.B.A., was withdrawn.

No historical account of the Rome Scholarship would be complete without mentioning the Jarvis Studentship, which was awarded on the result of the Rome Scholarship competition to the candidate who was placed second in the award.

The winners of this competition were: 1913 L. de Soissons, 1914 E. Cormier, 1921 E. W. Armstrong, 1922 G. Checkley, 1923 E. Williams, 1924 M. A. Sisson, 1925 C. A. Minoprio, 1926 H. Thearle, 1927 H. B. Dyer, 1928 L. W. T. White.

In 1929 the Faculty again reconsidered the conditions and adopted a proposal which must have saved many students hours of fruitless labour. It was decided that, in connection with both the preliminary and final competitions, the Faculty would examine immediately the sketches done *en loge* and eliminate forthwith those candidates who would obviously be wasting their time in continuing in the competition.

The winner in 1929 under this new condition was Mr. James Barrington Wride.

After considering recommendations made by the R.I.B.A. in 1930 the Faculty approved a new scheme.

The preliminary competition was abolished and replaced by an examination of the candidates' qualifications, and designs and drawings. From this examination a number of candidates were chosen for interview and from these, ten candidates were chosen to compete in the final. There were also admitted to the final certain prize winners and, sometimes from amongst

the candidates who had done well in the final of the preceding year.

The final competition consisted of thirty-six hours *en loge* in London, which were spent in preparing a sketch design for a special subject, followed by twelve weeks for the production of final drawings by the candidates in their own time and place. Under these conditions it was felt that there was no longer a need to examine immediately the *en loge* drawings as suggested in 1929.

In 1933 a Sub-Committee recommended that the *en loge* be reduced to 15 hours. They also recommended the admission direct to the final of "nominees" of schools who had produced a Rome Scholar.

From 1936 onwards, compulsory interviews were abolished.

During the years 1930 until the outbreak of war in 1939, the winners were: 1930—Professor W. G. Holford; 1931—Mr. Colin St. Clair Oakes, 1932—Robert P. S. Hubbard, 1933—Mr. Alwyn G. S. Fidler, 1934—Mr. F. A. C. Maunder, 1936—Mr. P. E. D. Hirst, 1937—Mr. W. T. C. Walker, 1938—Mr. Alex B. Wylie, and in 1939—Mr. Ralph Cowan.

During the war years no competition was held but they were revived in 1947. The general scheme remained as before, except that the admission of nominees direct to the final was discontinued.

The 1947 competition was won by Mr. R. Fraser. No award was made in 1948. The winner for 1949 was Mr. Ian Scott Melville, and for 1950 Mr. Edward Carter, who was successful with his scheme for a new college on the outskirts of Oxford or Cambridge.

The conditions were revised in 1950 for the 1951 competition. Applicants have now to apply on an entrance form and send a personal letter setting out the candidate's interest in travel and study in Italy, and any other considerations of which he would wish the Faculty to be aware when judging his claims to admission to the competition; and a portfolio of the candidate's past work illustrating his capacity for imaginative planning, architectural design, and draughtsmanship. After examining these applications the Faculty select not more than twelve candidates for admission to the first stage of the competition. This stage consists of a design held *en loge* in London. The subject of the programme, which is essentially a planning problem, is announced in general terms one week before the opening of the competition. The *en loge* competition lasts for thirty-two hours.

In the final stage there is a new programme but no *en loge* competition. The Faculty consider the schemes put forward in the first stage and choose candidates to take part in the Final. The selected candidates are allowed twelve weeks in which to work up and complete the final designs in their own time and place, for which a new subject is set.

From this historical review of the changes which have taken place in the conditions since the Scholarship was founded in 1913 it will have been noted that, whilst desirous of setting as high a standard as possible, the Faculty have always endeavoured to move with the times to assist students by changing the conditions when it was felt that they were too onerous. If the same consideration is given in the future, the Faculty can be assured of a ready response from the students for this coveted award.

M. E. TAYLOR

The British School at Rome Photo Eric Jarrett

Architectural Education Again

THIS is a report on a further regional conference of teachers of architecture. These conferences originated three years ago in Leicester and the idea was taken up by the Ministry of Education who recommended its continuance at one of the national conferences held at the R.I.B.A., the last of which was reported in these columns.

The value of these conferences lies in their informality and it becomes more and more apparent that the problems confronting the teachers of architecture at the full time schools, the methods of solving them and the reactions of the students develop very much in the same direction everywhere and teachers meet on common ground. The problems may be summarized as follows:

(1) The lack of cultural background and educational standard of still too great a number of students. As Mr. Eden, Head of the Leeds school, put it: "Too many still want to take up architecture, not because they want to be architects, but because they want to enter a profession and architecture is the only one they can manage . . ."

(2) The conflict between the need for training efficient practitioners ("assistants") and education aiming at developing creative facilities and imparting knowledge for knowledge's sake.

(3) The bridging of the cleavage resulting from the above between the rank and file of the practising architects and the schools.

(4) The search for a philosophy of teaching leading invariably to such problems as our attitude to the Classics and culminating in such distressing questions as quoted below regarding the whole justification of architecture as we know it.

This conference was held at Nottingham and Mr. Notley and his Staff of the Nottingham School of Architecture acted as hosts. Visitors had arrived despite snow and frost from the Universities of Manchester and Sheffield, from Leeds, from Leicester and Lincoln, making up a party of about two dozen including the members from Nottingham. As Nottingham shares the fate of so many schools of architecture, being abominably housed, the meeting was held in the pleasant Regency home of the Nottingham, Derby and Lincoln Society of Architects, where also some interesting work of students was on show. Space permits me only to give a brief excerpt of the proceedings and many valuable and witty remarks that were made have to be left unrecorded.

MR. NOTLEY introduced the first topic headed "Preliminary Experience, Work and Travel." In other words, the background. Office experience he considered of little value, although there are exceptions of course. A course at an art school was equally useless and at a technical school too uninteresting at that stage to be of any assistance. A period with a builder as is obligatory at most continental schools would be excellent if we had enough of the right kind of builder. The most useful would be a period of guided reading and travel. Money there need not be a deterrent as a lot can be achieved walking and

cycling. Some organised advice however would be helpful.

The discussion centred round this bogy of education. It was suggested that it was not the duty of an architectural staff to teach maths and languages! MR. EDEN, Head of the Leeds School, and well known to most members for his academic, scholarly attitude to architectural education agreed that the sixth form level should be the basis to architectural education as long as schools steered clear of such subjects as History of Architecture. It was more Mathematics and Latin we wanted. There was an ancient European tradition for the schools to provide the "tools" of learning in the form of the ancient disciplines in the Art of Calculation and the Art of Speech. The general certificate was insufficient and the standard should be at least equal to University Entry. But nothing should be added to the five years which now, with military service, might easily be seven years. The actual course should consist of a preliminary year, which is a gruelling testing time, then two years should be devoted to architecture as a Humane Study and two more years should be the "practical" years.

MR. GOODACRE, on the way to Leicester, was afraid lest we tried to create a sort of standard model of the architect while actually there were those with a more mathematically minded brain, the more artistic one and many others.

My own reply here was that the fault here often lay with the schools by trying to push any subject too far, for instance, aiming at B.Sc., Intermediate Standard in Mathematics, instead of laying a foundation in the disciplines as outlined by Mr. Eden.

Reverting to practical experience, Mr. Eden mentioned the Leeds method of carefully supervised site note books.

MR. NOTLEY summarized by saying that with all this we were after all trying to find a substitute for real experience.

After a coffee break, if break it was, because the arguments continued fiercely MR. SUMMERS, Nottingham, introduced the second item on the programme, namely, organized visits. He thought that on the whole more ground could be covered by a well illustrated lecture, unless the visit was very carefully planned in order to drive home one particular aspect. There were three types of visit: (1) Work in progress; (2) Building processes; (3) Industrial processes and activities; (4) Exhibitions. Taking each one in turn, No. 1 required the greatest care and under present day conditions one had to go far afield to obtain sufficient variety of work. But visits to old buildings would often serve to illustrate good craftsmanship and materials. On building sites the students were often beginning to find their feet in the foreman's hut. Craftsmanship they saw was frequently poor and the standard of working drawings one often found sent to the foreman appalling. Therein lay a certain danger. No. 2 included visits to such places as joinery works, steelworks, etc. No. 3 visits were designed to show processes and activities which influence planning, for instance, processes by which great bulk of an articles is produced by few people as in the case of a brewery and the reverse as a radio factory. Under the same heading are included visits to such places as law courts in session, to understand the procedure and activity. As to No. 4, Exhibitions, Mr. Summers did not believe in organized visits. Students should be encouraged as individuals to keep themselves well informed.

MR. GRAHAM, Nottingham, thought that students were not as a rule influenced by bad work, which Mr. Eden supported by saying that to the contrary they were often rather snooty about it.

Visits, however, should be carried out in small groups. This brought up the question whether students, if they went in small groups, not in class, were covered by insurance. The answer here seemed doubtful.

After a lunch interval Mr. Graham, Nottingham, introduced the topic of "School Programmes and Reality." His first point was that the object of a programme must be clearly in the instructor's mind. The subject should be a practical proposition referring to the world we are living in. Historical designs were often unreal such as one starting off: "Imagine yourself an assistant in Palladio's office." Stage sets might be useful for historical exercises. Sites if not local might be anywhere as long as there was an air of reality about them. There should of course be real clients, but one should avoid the client with decided architectural views. The stage in the students' development is often not sufficiently remembered and the tie-up with construction remained difficult but was perhaps not so essential in the first and second years. Schools did not sufficiently encourage the quick drawing as different from the carefully rendered sheet.

MR. GRAHAM: If the object is clear a design subject is real.

Whereupon followed a debate on the desirability of drawing volutes.

MR. EDEN insisted that we have to have two objects clearly in front of us, namely, that we were training people's minds as well as teaching an activity. The Classics served in this context to increase Knowledge. The orders had been pushed out and a certain uneasiness had crept in, and with it the orders are creeping back. Its real value will be difficult for the student's mind to assess, but that applied to many things.

Here an interesting and heated debate arose on the old topic of sociological background and its influence on design.

MR. THORNLEY, Manchester, was of the opinion that the architect had an intellectual as well as emotional approach for enjoyment of structure. Greek architecture appealed to the intellect, Henry More to the emotion. An aeroplane may appeal to both.

I myself added here that for the pure study of abstract form in three dimensions there was no basic difference between classical form and Henry More.

Here this part of the debate ended temporarily to make room for the next item on the agenda: Office Practice within the course.

MR. THORNLEY introduced the topic. Often office practice differed not widely from school inasmuch as the student was engaged on drawing things he never saw carried out. While building anything by himself such as laying bricks he considered utter waste of time, he contended that a real change came over the student's mind when he really saw something built from his own drawing, be it only a door post. Anticipating criticism Mr. Thornley said that the office did not necessarily spoil the student. He could learn there to be useful and then come back to school.

MR. NOTLEY remembered that he had not been particularly thrilled at seeing the result from this first drawing, which was a fume cupboard. Mr. Thornley sees the student frustrated who never saw anything actually built from his drawing and therefore tended to regard the drawing an end in itself which led to a new "Beaux Arts."

Mr. Eden feels strongly that Schools of Architecture are concerned with theory. Quoting Vitruvius, he said: "Theory is one thing, Practice another." As students nowadays expect to earn money as soon as they left School (£520 p.a. was quoted as the standard rate!), we had to insert a practical period. Space forbids to quote all the Vitruvian wisdom so delightfully presented by Mr. Eden, but the debate ran on for a long time on the by now familiar line whether a school should produce a utility object or the other.

MR. NOTLEY said that school training gave the student time to think and MR. CHIPPINDALE, Leicester, emphasized the vital need for people with ideas and it was those which schools will help to produce. The debate ended by touching on the question which is probably foremost in our minds these days whether architecture as we know it is to continue in the world as the expression of an individual mind. Tea arriving at this stage came just at the right time!

The last item on the day's agenda, once more introduced by Mr. Graham, dealt with the execution of students' work. Various instances were cited, one example was shown, namely, a village improvement scheme near Nottingham. No satisfactory solution to the problem could be found since it seemed to cut across various interests and often seemed to lead to the fact of a client getting something for nothing. At any rate, Mr. Eden did not want to see a school being turned into an office which also provided lectures. There were also difficulties arising from the regulations for statutory examinations. The day ended with a continuation of the discussion on the volute at the "Flying Horse" and closing time put a finish to it.

The next day, Saturday, saw two members of the Society of Architects representing the practising architects in a discussion on the local Society's activity and the School. It appeared from that that this Society was very active, running lectures, a design club, and hoping to provide a cocktail bar. It also provided an advisory committee and sponsored a number of competitions. One interesting fact was that students sit on the Council. The representatives present were Mr. Woollatt and Mr. Baldry, both practising architects in Nottingham. It was realized from their pleas that there still existed a gulf between private practitioner and the School.

This brought the meeting to an end except for plans for further contacts, exchanges of staffs (impossible usually due to housing difficulties) and plans for the next meeting. All being well this will be held at some Spa and then Mr. Eden will come into his own because he thinks conferences are not there to confer but because they give everybody a good time. However, we had a good time at this one.

H. W. ROSENTHAL.

NEWS of the BUILDING INDUSTRY

★ INTEREST ★

MY FEDERATION is not opposed to incentives schemes in principle, said Sir Harry Selley, President of the F.M.B., speaking at Cardiff, on January 5, indeed it welcomes properly administered schemes which will give increased rewards for increased production. Unfortunately, owing to the general set-up of our industry, it is only a very small percentage of building undertakings who are able to operate properly conceived schemes.

Sir Harry said that up to now incentives have been operated as a device to give increased hourly rates to attract labour from one building site to another without any regard to the subsequent production. The President maintains that the only way the industry can increase its productivity is through the pay packet by the application of *real* payments by results schemes.

"Further controls are already upon us," said the President, "and we are likely to see still more imposed . . . the building programme will be diminished rather than expanded so far as the everyday work of the normal builder is concerned. The nature of the industry's work is bound to take on a different complexion. This means that every firm must take stock of its position and certainly endeavour to increase its efficiency both in ministration and actual operation of its day-to-day activities."

*

THREE BURSARIES, each of up to £50 a year for three years, will be offered to young apprentices during the Midlands Building Exhibition at Bingley Hall, Birmingham, from February 14-24. The bursaries are being awarded by the organisers of the exhibition—Herbert Daniel Exhibitions Ltd.—and have been formulated and will be administered by the Midland Federation of Building Trades Employers (affiliated to the N.F.B.T.E.). The competition will be open to all *bona fide* employees, between the ages of 16 and 21, of building trades employers in the region, irrespective of whether their employers are members of the Federation.

Candidates for the bursaries will be required to write an essay on the exhibition in general, including an expression of opinion on the most useful exhibit from the point of view of progress, efficiency and its effect on overall increased production, with reasons for the opinions given.

*

BRITISH MANUFACTURERS who are willing to receive visitors at their factories during the Festival of Britain, 1951, are invited to send particulars to the Council of Industrial Design. The Council will compile a list of such firms and arrange for it to be carried at all Industrial Information Bureaux in the official Festival Exhibitions. The list will be issued to visitors on presenting a trade or business card.

Manufacturers who would like their names to appear on the list should write to Mr. S. D. Cooke, Council of Industrial Design, Tilbury House, Petty France, S.W.1, telephone VICtoria 8484, enclosing in addition to the name and address of their factory some particulars of the goods they make, the approximate number of employees in the factory or other indication of size, the most convenient days and hours for receiving visitors and the person to whom visitors should apply in advance. Details of languages spoken by staff available as conductors will be welcome.

*

THE MINISTRY OF WORKS' Regional Director for the South-Eastern Region, Mr. S. J. Egerton-Banks, M.I.MECH.E., retired on December 31. The Regional Office at Tunbridge Wells will be closed on March 31 next.

A District organisation for the maintenance of Government buildings will remain but it will be controlled from headquarters. Questions affecting the Building and Civil Engineering Industries and Building Materials Industries in the South-Eastern Region will be handled from headquarters at Lambeth Bridge House. Applications for Building Licences and Statistical returns from builders will be dealt with by the London Licensing Office at 17 Cornwall Terrace, Regents Park, London, N.W.1 (Telephone Museum 5030).

*

PUTTY is an essential building accessory frequently taken for granted. Developments in materials and fixing techniques in recent years, however, have resulted in the production of a number of special purpose puttys and mastics. Readers in search of information may like to be reminded that a laboratory devoted to the manufacture and uses of putty and allied products is maintained by Sealanco (St. Helens) Ltd.

*

FOLLOWING THE INCREASE in premiums charged by the Ministry of Supply on special shapes of copper the current basis price of copper sheets and circles over 48 ins. wide is increased by £4 to £252 per ton.

*

A SPECIAL COURSE of 12 weekly lectures on Structural Welding and Analysis has been arranged, commencing Friday, January 19, 1951, at 7 p.m. at the Hammersmith School of Building.

The lectures by Mr. O. Bondy, A.M.INST.C.E., M.I.STRUCT.E., and Dr. H. Gottfeldt, M.I.STRUCT.E., M.I.INST.W., will deal with the analysis and design of all types of welded steel structures, and are intended to cater for the requirements of practising structural designers.

*

MACKAY INDUSTRIAL EQUIPMENT LIMITED, of Faggs Road, Feltham, Middlesex, have appointed Messrs. R. G. Ledger and K. F. Dormer to the board of directors.

THORN ELECTRICAL INDUSTRIES LTD. are now operating a depot in Glasgow at Craighton Industrial Estate, Barfillan Drive, Paisley Road West, Glasgow, S.W.2. Telephone number: Glasgow—Half Way 4967.

*

"BUILDING RESEARCH, 1949" published for D.S.I.R. by H.M.S.O., price 3s., draws attention to the increasing use of field work and full scale tests. Items of this kind on which the Building Research Station is engaged include soil mechanics, stresses in building structures and bridges and the heating, ventilation and sound insulation of houses. The post-war extension of the activities of the station is achieving an increasing rate of progress of work on the research programme. Difficulties of recruiting and training staff, however, still make it impossible to carry on active work on many items. The Report of the Director of Building Research describes the year's work under more than 60 headings.

Studies have begun on the functional design requirements of types of buildings for special purposes, e.g., schools, factories and hospitals. The large-scale heating trials in occupied and unoccupied experimental houses have continued, with improved recording equipment; this work is now being supplemented by measurements of the temperatures maintained in ordinary houses in different parts of the country. The research on lighting has reached a stage at which it is possible to link its results with the study of building types. From the results of measurements of sound insulation in buildings, carried out both in the field and in experimental flats, the sound insulation of most practical types of construction can be predicted with reasonable accuracy, and more basic research is now benig initiated. Work on plumbing has included tests on one-pipe systems and investigations on the problem of back-siphonage.

An account of the work of the Colonial Liaison Officer describes an active service of information on colonial building problems which is rapidly being established.

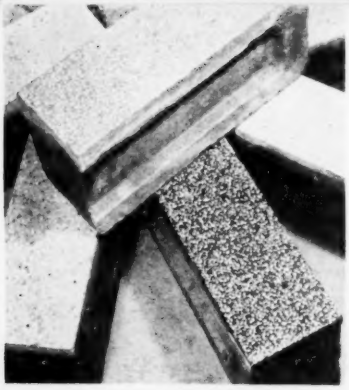
*

THE NEW LONDON ELECTRON WORKS LIMITED (one of the "600" Group of Companies) announce that Mr. Felix L. Levy has been elected Chairman and Managing Director of the Company.

Mr. Levy is a Director of George Cohen Sons & Co. Ltd. and a member of the Management Committee of the National Federation of Scrap Iron and Steel Merchants, and of the Executive Committee of the London and Southern Scrap Iron and Steel Association.

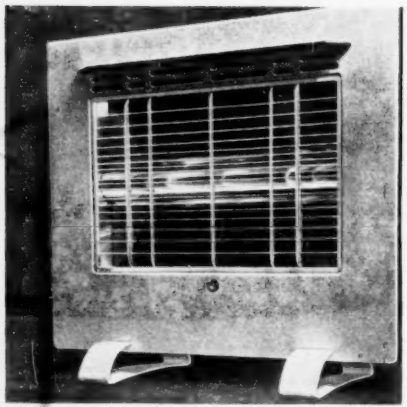
ANNOUNCEMENT

In the New Year issue of The Architect and Building News, to be published next week, the News of the Building Industry Section will be enlarged to include a review of building materials and techniques over the first half of the century. In addition there will be special articles describing the progress of electricity and coal heating, a review of concrete development, and other special articles. A five page feature will be devoted to illustrations and description of shell concrete construction as applied to the standard factories now being built at Crawley New Town. There will be no Mosaics in this issue but the following issue will contain an index to all Mosaics which have been published during 1950. A new series will start on February 2.



STRUCTURE—BRICKS, BLOCKS, ETC. A 6 1

These general purpose concrete bricks have one face surfaced with terrazzo in a variety of finishes and colours. The bricks have been tested by the City of Birmingham Public Works Department Industrial Research Laboratories. Average figures for absorption are 9.9 after 24 hours in water; 15.5 after 5 hours in boiling water. The saturation coefficient is .64. Average compression strength is said to be 2,805 lbs. per square inch (*cf.* B.S.S.1180). The cost is lower than average prices for glazed bricks. Quil-Briks are being produced in all normally required patterns.

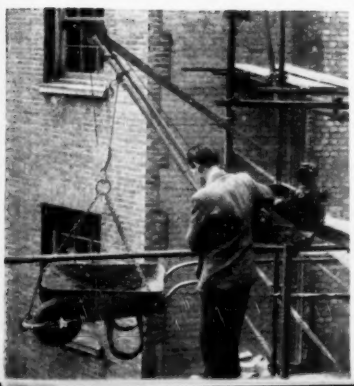


SERVICES—HEATING B 3 10

Safety is the principal feature of this new radiant (open element) fire, which is fitted with a graduated guard and element shield. It is impossible to touch the element. In addition the current is automatically cut off when the fire is tilted, knocked over or lifted by the handle. Parents will appreciate the value of this fire. There are two models—the portable shown here, and a panel type both with the same loading of 1,250 watts and the same price (£13.17.7 including £5.17.7 p.t.). The portable fire measures 21½ ins. wide x 19½ ins. high and weighs 12 lbs. The panel fire is 21½ ins. wide x 17½ ins. high and requires a minimum opening of 18 ins. x 15⅝ ins. x 7 ins. deep.

FITTINGS—COOKERS C 1 3

This electric cooker recently developed on American lines to suit the British market is expected to be available on the home market early this year. The cooker which was shown for the first time in December 1950 is to be produced in two models for home use. An extra large oven (with interior light), three 8 inch solid or radiant type boiling plates (interchangeable), a plate warming drawer, wide grill and cupboard space are contained within the same height and depth as standard cookers. The width of the cooker is 36 inches. The boiling plates are controlled by simmerstats. The cookers are finished in cream enamel and are suitable for voltages of 200 210, 220, 230 240, 250 A.C. The price of the home models is 54 gns. and 60 gns.



PLANT—LIFTING GEAR, HOISTS, ETC. E 6 3

This Scaffold Jib has been recently introduced to provide easy landing of small loads and articles on to scaffolds in conjunction with the junior power winch manufactured by the same company. The jib is designed for easy mounting on any suitably braced scaffold standard. With hand slewing a full 360 degrees swing is possible. With the winch mounted a variable radius is provided up to 5 ft. Three loads can be dealt with at different speeds. These are 2 cwts. at 85 ft. per minute; 3 cwts. at 55 ft. per minute and 4 cwts. at 30 ft. per minute.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—Including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.

Please mark the envelope MOSAICS

M.o.W. LECTURES

January 15

Mining Subsidence Problems Affecting Housing Construction.
7.15 p.m. at Derby Co-operative Provident Society Ltd., Albion Street, DERBY.

*

The Structural Fire Protection of Buildings.
7.15 p.m. at Education Buildings, Guild Street, BURTON-ON-TRENT.

*

Introduction to Site Costing for Builders.
7.15 p.m. at Institution of Engineers and Shipbuilders in Scotland, Elmbank Crescent, GLASGOW, C.2.

January 16

Introduction to Site Costing for Builders.
7.15 p.m. at Scottish Gas Board Showroom, FALKIRK.

*

Timber in Building—Factors Affecting Its Behaviour and Durability.
7.30 p.m. at the Physics Lecture Theatre, Royal Fort, BRISTOL, 8.

*

Foundation Problems.
7.15 p.m. at the Technical College, BRIGHTON.

*

The Building (Safety, Health and Welfare) Regulations 1948. (*S.I.* 1949, No. 1145).
7.15 p.m. at Lecture Hall, Central Library, BURNLEY.

January 17

Timber in Building—Factors Affecting its Behaviour and Durability.
7.15 p.m. at the Town Hall, DEVIZES.

*

Economy in Traditional House Building.
7.15 p.m. at Lecture Hall, Technical College, Palatine Road, BLACKPOOL.

*

Some Aspects of Concrete.
7.0 p.m. at Creighton School, Strand Road, CARLISLE.

*

Introduction to Site Costing for Builders.
7.15 p.m. at the Town Hall, MOTHERWELL.

January 18

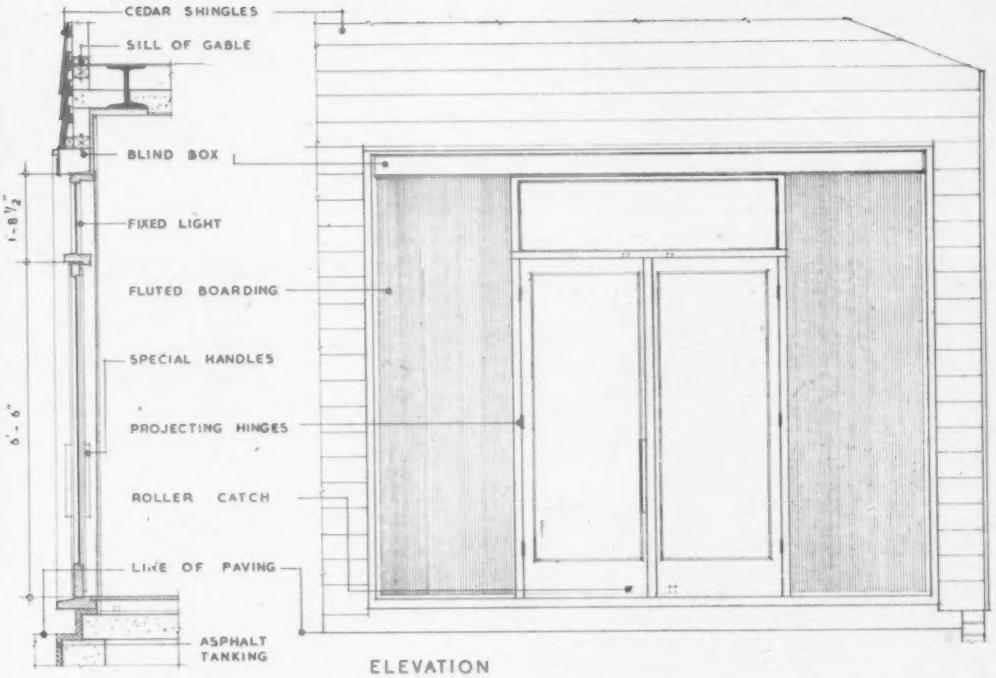
Application of Zinc in Building.
7.0 p.m. at Walker Hall, Technical College, SHREWSBURY.

*

ntroduction to Site Costing for Builders.
7.15 p.m. at the Dick Institute, London Road, KILMARNOCK.

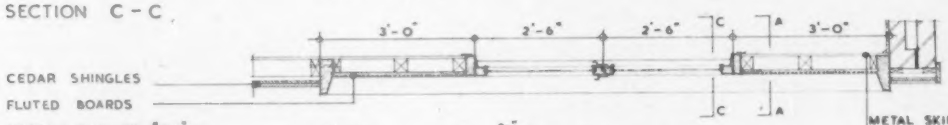
*

The Building (Safety, Health and Welfare) Regulations 1948 (*S.I.* 1949, No. 1145).
7.15 p.m. at the Civic Centre, SWANSEA.

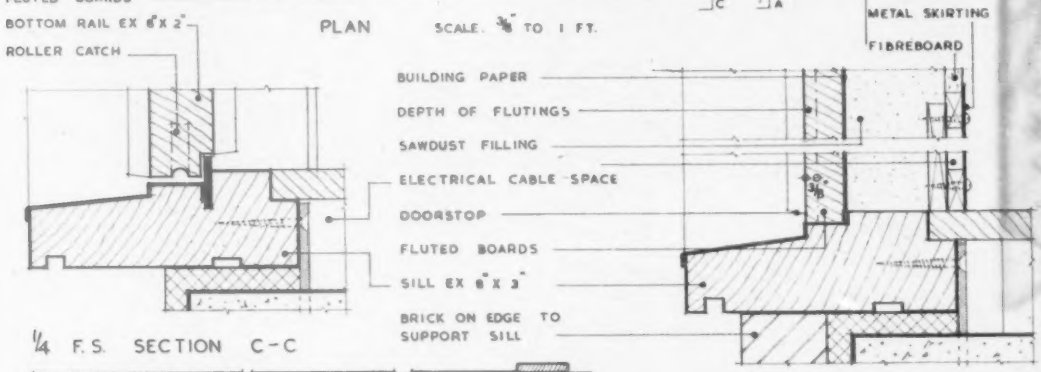


ELEVATION

SECTION C-C

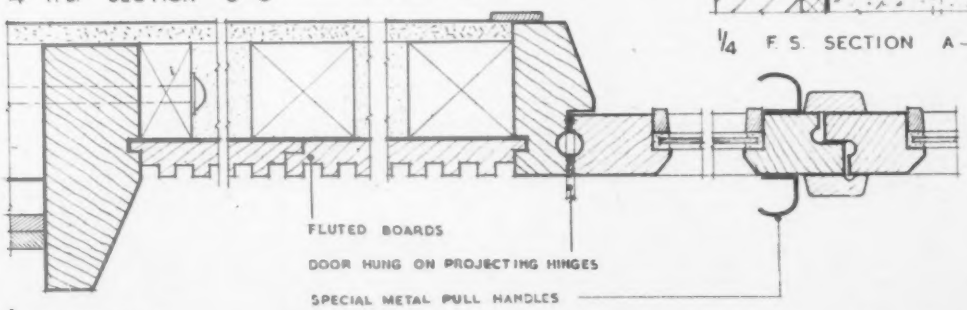


PLAN SCALE ⅜" TO 1 FT.



¼ F.S. SECTION C-C

¼ F.S. SECTION A-A



¼ F.S. PLAN

FRENCH DOORS, HOUSE AT KINGSTON, SURREY

ARCHITECTS: TAYLER AND GREEN

GOOD, BAD OR INDIFFERENT ?

No. 19—By A. FOREMAN

HOUSEHOLDERS seem to complain to me far too frequently that they cannot keep food satisfactorily in their larders and when one investigates it is usually quite understandable. For example, in a recently erected house I noticed that there was a long side-hung casement window, without any fly-screen, facing due south so that the main shelves were receiving the full summer sun while any blind or curtain that the occupier put up merely reduced the air circulation. It is true that in order to maintain low temperatures in really hot weather a refrigerator becomes essential but a properly designed larder goes a long way towards the provision of adequate storage; there are also many food products which do not really need the low temperatures of a refrigerator but only the coolness of a proper larder.

Larders must be given a position on an outside wall and this wall should receive as little sunshine as possible. They should be enclosed in materials which provide a reasonable degree of insulation from the heat of the house; larders formed in a corner of a tiny kitchen of ½ in. matchboarding and an ill-fitting door cannot be expected to be satisfactory especially when one side is against a cooker as one so often sees.

Circulation of the air in larders is essential and this can best be provided by putting an airbrick near the floor and another, or a window, high up. All airbricks and windows should be covered with small mesh gauze to keep out flies and vermin and they should be capable of being closed in very cold windy weather, to prevent freezing. Shelves should be kept about 1 in. away from walls, except where supports are essential, to assist this air circulation.

While darkness may tend to discourage flies it is advantageous to have windows to provide daylight in larders so as not to have to keep putting on lights or groping in the dark. When selecting larder windows remember that they must keep out the flies and also that they are capable of being cleaned without too much difficulty. When bottom hung inverted windows are used be sure the type of stay installed allows them to open freely when required and that when installed the shelves do not prevent adequate opening for cleaning. Windows opening outwards are very difficult to screen efficiently as the hardware has to move through the screen, while windows with fly gauze instead of glass for some panes may be acceptable in good weather they are thoroughly unsatisfactory in driving rain and very cold weather.

Care in the design of the shelving for storage will be amply repaid by the increased efficiency of the storage places. Ideally the shelves should be just wide enough to accommodate a single row of articles and just far enough apart to provide clearance above them. This idea has been worked out experimentally and showed a very great increase in the amount of goods that could be stored in a given floor space and at the same time each item was more readily accessible. Unfortunately it would be rather difficult to carry out this idea to the full in the normal household where you are faced with such a random assortment of articles of which few are the same size and thus do not fit a "tailor-made" scheme of shelving. In spite of this there is a definite advantage in adopting the idea as far as possible. The width of shelves must be related to their distance apart and it will usually be found better to have relatively shallow shelves placed fairly close together. Deep shelves, that is, more than 11 or 12 in., which is the width of a bread or cake tin, means placing many goods behind one another thus making them more difficult of access. In larders it seems best to have two shelves approximately 2 ft. 6 in. and 3 ft. 6 in. above the floor on one wall for the larger items and to use the remainder of the space on this wall for shelves 8 in. deep and 8 in. apart. These shelves will between them house most of the larger articles. The space below the shelf at the 2 ft. 6 in. level accommodates vegetable racks, egg pails, beer crates and other large objects. On the remaining wall or walls I suggest shelves not wider than 4 in. with clearances of 10, 9 and 7 in., together with some only 3 in. wide with the same clearances; these will accommodate fruit bottles, jam jars and the wide variety of tins, bottles and packets but taking up very little floor space. It is often possible to arrange a series of these narrow shelves behind a door in the space needed for the frame and the architraves. One hundred normal fruit bottles in a single row require about 31 ft. run of shelf space and 100 lbs. of jam in 1 lb. and 2 lb. jars occupy about 8 sq. ft. Remember that shelving, however wide, is useless above a height of 6 ft. 6in. except as "dead storage." By the way don't make the dreadful mistake of placing the refrigerator in the larder; refrigerators give off heat in order to cool.

Another important point in larder design is the finish of the surfaces of walls and floors of larders; these should be of smooth hard materials which can be washed frequently; thus walls of whitewashed fair-faced brickwork are not really satisfactory and if materials such as glazed tiles are too costly at least painted plaster should be used.

DOMESTIC SOLID FUEL APPLIANCES—NO. 3

By John Pinckheard

DURING the inter-war years independent domestic hot water boilers greatly increased in popularity especially in the south of England—due largely to the replacement of the solid fuel ranges by gas or electric cookers and the consequent need for some other source of domestic hot water. In the post-war period emphasis has been mainly on the single multi-duty appliance providing space heating, water heating and sometimes cooking services. However, there are many house plans where it is more convenient to have the boiler and the space heating appliance separate from each other. Also, in houses for larger families, an independent boiler may be the only way of ensuring a sufficient supply of hot water.

In addition to supplying domestic hot water the boiler can of course provide some background heating. For instance, it may be used for heating the kitchen, and for background heating in the hall (by means of a small radiator) or the bathroom (by means of a heated towel rail). Alternatively, it may supply background heating to two bedrooms by means of small radiators. Independent boilers are two types — open fire boilers, in which doors can be opened to give a view of the fire, and closed boilers in which the waterway is continuous across the front. They are almost always

Fig. 1.

free-standing but there are inset models which are similar in appearance to inset openable stoves.

Small domestic boilers are the subject of British Standard No. 758/1944, which gives performance standards and details of construction. The specification applies to boilers intended primarily for domestic hot water supply and having a heating surface of between 2 sq. ft. and 5 sq. ft. Limiting values are given for the volume of the fire box which should not be less than 0.6 cubic feet (though the B.S. admits a temporary relaxation so as to permit a fire box of 0.49 cubic feet capacity for existing models until patterns can be changed). The fuel capacity is, in any case, required to be sufficient to enable the fire to be kept alight unattended for at least 10 hours, leaving sufficient live fuel to enable the fire to be restored. The ash door is required to comply to given standards of air tightness—the maximum and total clearances around the door are specified and also limiting values for the air control setting.

One of the difficulties sometimes experienced with small boilers is keeping them alight overnight especially when they are fired with coke. It is not usual to have trouble with anthracite or dry steam coal but when coke is used—because of its low bulk density—it is necessary to refuel the appliance more frequently and if the firebox is small there may be insufficient fuel to

maintain combustion throughout the night. The problem is aggravated if the air control cannot be set finely enough to ensure a low rate of burning. It is for these reasons that B.S. 758/1944 is particularly concerned with the volume of the fire box and proper air control. A boiler may have a high thermal efficiency but if it cannot be regulated to burn at the minimum rate necessary to support combustion, it may produce unwanted hot water and for that reason be uneconomic. A boiler of lower efficiency but capable of burning at the minimum rate during the night may well be more economical in terms of fuel consumption.

Smokeless fuel only should be used in domestic boilers and the makers' recommendations as to the grades of fuel best suited to the particular models should be followed. Fuel consumption obviously varies with the kind of fuel and the demand for hot water but for boiler rated at 20,000 B.Th.U.s. per hour—the most usual rating for small houses—and burning good coke, an hourly consumption of 3 to 3½ lbs. might be expected when operating under full load, and as little as ¼ lb. per hour when banked. An even lower rate of burning is desirable and it has been suggested that ¼ lb. per hour would not be too low, though this is considerably less than the present minimum consumption of existing models. The requirements of a normal household over a 24-hour period will, of course, be very much less than the maximum output of the boiler and generally a low rate of burning may be maintained with higher over-all efficiency.

The installation of independent boilers is similar in most respects to that of free-standing stoves. The Code of Practice "Centralised Domestic Hot Water Supply" (C.P.342(1950)) makes certain specific recommendations, which include the following:

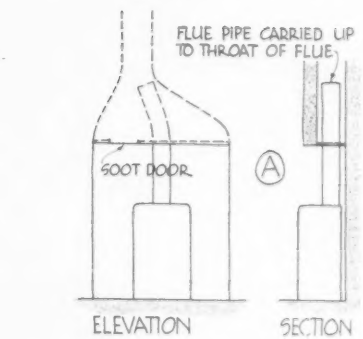
Smoke pipes should be of cast iron, mild steel not being considered a desirable substitute and all bends and offsets in smoke pipes should be provided with cleaning doors. The horizontal distance between the boiler smoke outlet and the chimney should be as short as possible and should not in any case exceed one-quarter of the vertical chimney height. The boiler should be installed with sufficient clearance for cleaning wherever cleaning doors occur. For boilers with a base area of not greater than 4 sq. ft. the minimum clearance should be 15 inches. Clearance for stoking should be at least 1½ times the length of the boiler from back to front but never less than 3 ft. 0 in. Combustible material should not be placed near a boiler but where it is unavoidable to do so it should be protected with incombustible material and kept at least 12 in. from the boiler.

Small domestic boilers almost invariably have top flue outlets. They are installed either in a recess with the flue pipe carried up through a lintol block or register plate to connect to the main flue, or against a a wall with the iron flue pipe taken up and turned with an easy bend into a brick flue. In existing buildings it is common to find the boiler in a recess (formerly occupied by the old coal range), the top of which is sealed by a register plate. The flue pipe in this case should always continue up through the gathering, terminating at the throat of the flue. A soot door should be provided in the register plate to facilitate chimney sweeping.

In new buildings it is usually tidier not to have a register plate but to form the head of the recess with a reinforced concrete lintol block suitably holed to receive the flue pipe and possibly also for a soot door. In many cases it is simple to continue the flue down to terminate in a soot door at some point below the entry of the boiler flue. Diagrammatic illustrations of flue connections are given in Fig. 4.

Fig. 2.

Fig. 3.



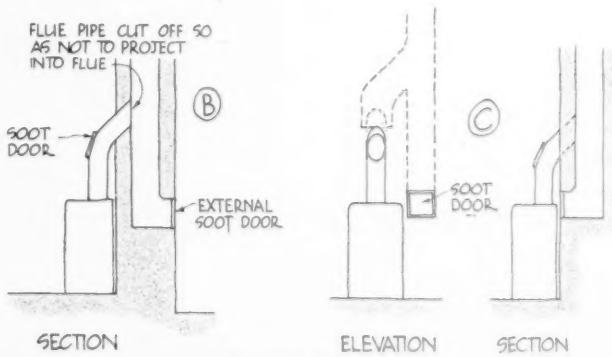
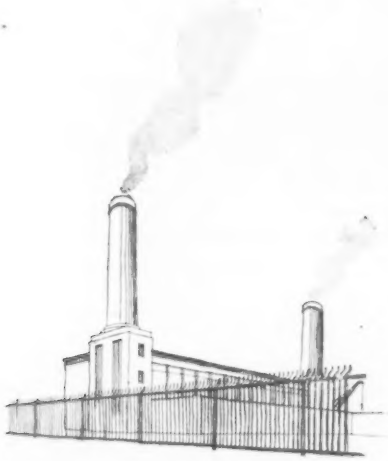


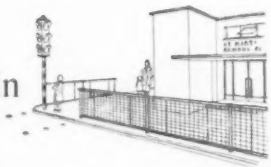
Fig. 4.

If it's railing or fencing for



or for

or for keeping people in



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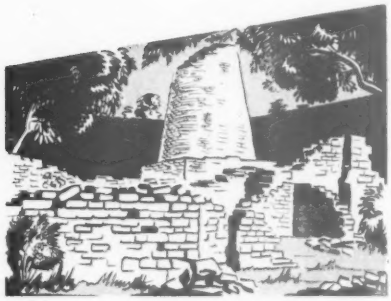
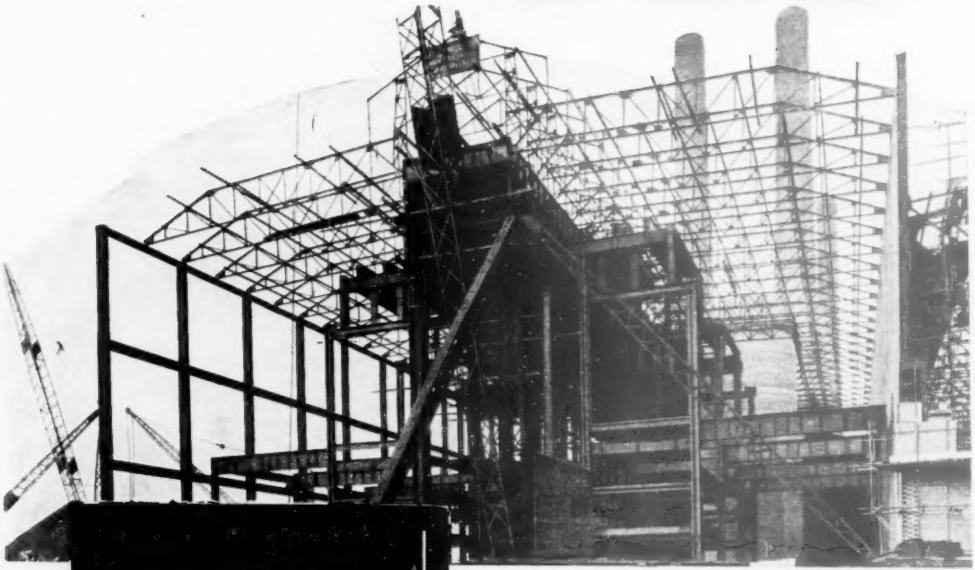
BJB

Look back
and wonder

The ruins of Zimbabwe remain shrouded in mystery, the more so because the excellence of the building indicates an advanced civilization of which all trace has been lost.





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COSTING OF BUILDING WORK—NO. 7

by S. Howard Withey, F.Comm.A., etc.

WHEN agreements are entered into for the execution of building work at stipulated figures, it is advisable to make up separate contract accounts disclosing the margin of profit realised, or the extent of the loss which has been sustained, each account being debited with the invoiced cost of all materials used on the job, whether obtained specifically from outside suppliers or taken from the builder's stock. Carriage or cartage charges paid or payable on purchases up to arrival on the site should also be debited to the respective contract account, and in addition to the labour costs (including payments made to joiners and carpenters, painters, plumbers, etc.), an adequate sum should be charged for the use of machinery, tanks, mixers, woodworkers, breakers, saws, drills and small tools.

Items of cash paid by clients during the currency of contracts are usually posted from the head office cash book to the credit side of the personal accounts or to the respective contract accounts. As soon as a job has been completed the amount by which the total of the entries on the credit side of the particular contract account exceeds the debit total will represent the balance of profit to be transferred to the periodical profit and loss account; if the total of the debit items exceeds the credit total the difference would represent the loss sustained to be shown on the debit side of the final account.

Accounts of contracts which have not been completed at the time of the annual or half-yearly stocktaking should be treated as assets or liabilities, according to whether they show debit or credit balances. In other words, the contracts on hand should appear on the builder's balance sheet instead of in the profit and loss account. If, on completion of the work, any balance of the contract price is outstanding, the amount should be entered as the last item on the credit side of the contract account and debited to the client's personal account.

No contract should be charged with wages that do not directly increase the cost of carrying out the work, but the salaries paid out to clerks and others exclusively engaged on the job may be debited. The nature and extent of the items to be recorded will vary in individual cases according to the type of work; examples indicating the methods of making up completed and unfinished contract accounts are given herewith.

When two or more builders undertake jointly to purchase certain materials to be allocated on an agreed basis, it is advisable to keep separate joint accounts. All charges and expenses incurred in connection with such transactions should be debited to the respective joint account or accounts as direct postings from the cash book, the sale or charging out prices of all goods sold on joint account being credited and charged to the buyers. When all the goods, etc., included in a venture of this kind have been sold, the other parties to the deal can be credited with their share of the profit (after allowing for any accrued expenses), and upon the receipt of cash from a joint partner, representing his share of the cost, his personal account should be credited direct from the cash book.

(To be concluded)

COMPLETED CONTRACT

CONTRACT No. 369 (LEEDS)

DEBIT		£ s. d.	CREDIT		£ s. d.
1950			1950		
Oct. 1	To Balance brought down	: :	Oct. 16	By Cheque on A/c	: :
Oct. 6	To Timber	: :	Nov. 15	By Cheque on A/c	: :
Oct. 10	To Lead	: :	Dec. 30	By Settlement	: :
Oct. 14	To Bricks	: :			
Oct. 23	To Slates	: :			
Oct. 27	To Wages	: :			
Nov. 3	To Glazing	: :			
Nov. 11	To Cables	: :			
Nov. 22	To Flexibles	: :			
Nov. 24	To Wages	: :			
Dec. 2	To Covering	: :			
Dec. 8	To Insulating	: :			
Dec. 16	To Aluminium	: :			
Dec. 20	To Plastics	: :			
Dec. 22	To Depreciation of Machines and Plant	: :			
Dec. 29	To Wages	: :			
Dec. 31	To Balance being Profit transferred to Profit and Loss Account	: :			
		£ : :			£ : :

INCOMPLETED CONTRACT

CONTRACT No. 264 (BRADFORD)

DEBIT		£ s. d.	CREDIT		£ s. d.
1950			1950		
Dec. 1	To Brought Forward	: :	Dec. 1	By Brought Forward	: :
Dec. 4	To Glass	: :	Dec. 15	By Cheque	: :
Dec. 8	To Wages	: :			
Dec. 9	To Cement	: :			
Dec. 12	To Clay	: :			
Dec. 15	To Wages	: :			
Dec. 18	To Distempers	: :			
Dec. 20	To Elec. Components	: :			
Dec. 22	To Wages	: :			
Dec. 23	To Timber	: :			
Dec. 29	To Wages	: :			
	Carried Forward	£ s. d.		Carried Forward	£ : :

SLAG WOOL

A Short History

New Year 1951 which is also the beginning of a new half-century marks the close of a period in building techniques which has seen many drastic and progressive changes. In our next issue the general trend of techniques and uses of materials over the past 50 years will be reviewed. In the field of acoustic and thermal insulation much has been done which enables lighter structural materials to be used than ever before. Of the many materials available for effecting such insulation slag-wool has proved its value in many buildings. To-day's demand has resulted in the amalgamation this month of two of the oldest and most progressive companies producing this material. This article describes some developments made by the two companies.

THE first slag wool known to man was produced by natural phenomena. A book published in 1643 speaks of a volcano in eruption on Martinique, being struck by the full force of a hurricane which transformed the blazing lava into a white fibrous substance, but as its properties were then unknown, it had no practical value and remained a curiosity of the times.

Experiments to discover the uses of slag for insulation were carried out in 1840 in Wales but it was left to Krupps of Essen in Germany to produce and market slag processed for insulation purposes and known as "Silicate Cotton."

During the last 70 years Fredk. Jones & Co. Ltd., of London, and J. C. Broadbent & Co. Ltd., of Redcar, have been largely responsible for making available slag wool in a variety of forms to meet the exacting requirements of engineers engaged on insulation of all types of plant and construction from power houses to cold storage, public and civic buildings, marine and ship building, railway engineering, housing, etc.

Quantities of Krupp's "Silicate Cotton" were exported to England and Fredk. Jones & Co. were the sole importers. The high cost of transporting such a light and bulky substance decided them to set up their first plant near an iron and steel works in Middlesbrough. Molten slag was tapped from the blast furnaces and jets of steam transformed it into a fibrous substance, called Slag Wool. Production by this method was very limited and difficulties arose in

the control of the raw material to make slag wool of standard consistency.

To overcome this a new and independent factory was built and installed with coke-fired cupolas and plant. And a new process for the making of slag wool was formulated. In the new method measured proportions of solidified slag, containing a high percentage of silica and alumina, were combined with other minerals to stand up to the exacting tests required for highly efficient insulation.

The new product proved to be superior to the German product. Its closely woven masses of tiny fibres were extremely resilient. It was perfectly harmless to handle. It was fireproof. The last mentioned quality first recommended slag wool to engineers, who used it mainly as a fireproof lining for walls.

About this time the frozen meat trade and cold storage at docks was expanding. Fredk. Jones & Co. Ltd. set out to convince the engineers responsible for the ships and plant used in cold storage, of the superior efficiency of slag wool for thermal insulation over the methods then in use—such as sawdust, grain husks, charcoal, etc.

The first vessels to be equipped with slag wool insulation were two Tyne built steamers commissioned by the Pulsometer Engineering Co. for the frozen meat trade.

At that time tests were also being carried out by the London and India Docks Joint Committee.

Large contracts were soon placed for slag wool insulation for cold storage in the docks, bulkheads of ships of the Royal Navy. Merchant fleets and passenger liners were equipped with thermal and acoustic insulations.

Further tests showed that even when subjected to vibration slag wool maintained its efficiency and showed little or no settlement.

Architects now specified the material both for thermal and acoustic insulations in public buildings and concert halls. The old Queen's Hall and the Royal College of Music were among the earliest buildings to be insulated with slag wool.

New processes and plant were designed which produced Slag Wool in a variety of forms, many of them prefabricated for immediate installation. An impregnated water repellant slag wool was also manufactured to complete the all-round efficiency of the material.

With the growth of cold stores, film studios, cinemas, broadcasting buildings and offices, acoustic and thermal insulation has now become a standard requirement. The demand is now enormous. By co-ordinating the technical and advisory departments of both companies under one building and greatly increasing the facilities for speeding production, Jones & Broadbent have taken a big step forward in meeting this demand.

In addition to the resources made available to the one company in the existing factories and plant in Burton-on-Trent, Redcar and London, a new factory in Yorkshire has been equipped with the most modern continuous production cupolas. This factory will soon be in full production and Jones & Broadbent will then, not only meet adequately the present increasing demands for slag wool, but will have anticipated the even greater call that will be made upon their resources by industry, engineers, civil engineers, architects and others in the immediate future.

OFFICE BOOKSHELF

THE author has adopted a novel method of approach to his subject in *Building Materials* by Cecil C. Handisyde (The Architectural Press, price 25s.) in that he firstly deals, in eight chapters forming Part One, with the factors which govern the selection and application of materials such as movements, thermal properties, mechanical properties, fire risks, durability and methods of production; he then devotes fifteen chapters, forming Part Two, to the individual materials or groups of materials.

Authors of previous books on this subject do not seem to have attempted such an approach through the science of materials, probably because they have not had the advantage of the close contact with the work of the research stations which Mr. Handisyde has had. This wide knowledge and close contact with scientific workers seems to have led the author into the doubtful assumption that all readers of his book will be able and willing, having been given the lines of thought, to reason out the application of the information given in the book. The dust cover of the book states "he examines thoroughly those problems of increasing concern to architects" but the book omits to tell the reader sufficiently directly what to do in the light of the examination; few architects or students have much time to devote to the contemplation of problems and therefore need the answers presented in a simple and straightforward form. This book reads like the collected notes of a lecturer rather than a textbook.

The subject of building materials is vast and in order to produce a book of reasonable size the author appears to have decided merely to make reference to where the information exists rather than to give it; consequently the book is a combination of a summary of very general facts with a catalogue of sources of detailed guidance. There are too many references to the need to consult experts. Most of the facts given seem to be correct but a few are a little strange such as "high gloss paints" are "oil paints" and the reference to mastic asphalt with a limestone aggregate as "synthetic asphalt."

The book suffers greatly from this effort to cut down the contents with the result that however correct the statements may be they are apt to be misleading due to their brevity. Also it is a little hard on the purchaser, having paid 25s. for a book on building materials, to find in it a few facts, some extremely obvious, and a vast amount of information as to where the information really exists and that to obtain it pounds and pounds must be spent in addition to the cost of the book; surely any purchaser has a right to expect the information to be in the book itself.

Theory of Structures

A new and considerably revised and extended edition, the Third, of *Theory of Structures* by H. W. Coultas (Pitman, Engineering Degree Series, price 20s.) has appeared. This edition is an even more thorough coverage of the subject and deals very fully with the fundamental principles in the light of advancing knowledge and continues to avoid matters of design arising from the application of these fundamentals. The book is well presented in a manner which should be completely understandable to the advanced student of engineering.

Heat Insulation

Not very many comprehensive books have appeared on the subject of heat insulation for architects, engineers and students but this month brings one from U.S.A. in the form of *Heat Insulation* by Gordon B. Wilkes (John Wiley, New York, and Chapman and Hall, London, price $4). It discusses in reasonably understandable language, subject to the use of American terms, such matters as the purposes of heat insulation, moisture insulation, economics of insulation, fundamental formulas and types of insulating materials. There are some useful tables and a large bibliography.

Timber

To those in the timber trade, especially the younger members and students who have had little experience of importing due to events of recent years *Timber Trade Practise* by Mallinson and Grugeon (Cleaver-Hume Press, price 15s.) should be an extremely valuable guide to the commercial side of the timber trade. It deals with the sources of supplies of hard and soft woods, classification, measurement, purchase and shipping. It contains useful maps, important statistics and clause by clause commentaries on the normal forms of contract. The paragraphs on developments in the trade are, however, a little meager, especially in regard to preservation and stress-grading which need the maximum of encouragement in the trade to ensure full use of such a valuable material as timber has now become. It is a pity that the authors have not brought out the need for the adoption of an international grading, at least for softwoods from European sources.

Surveying

Surveying and Levelling for Builders by Noel L. Reece (George Newnes, price 35s.) is a comprehensive, although slightly long-winded, simple treatise on surveying up to the standard needed for the Higher Certificate in Building. It covers chain surveying, levelling, angle measuring and traversing; in each branch the instruments used are fully described and illustrated together with the fieldwork, plotting and computations involved. The text is easy to follow. There are useful chapters on the setting out of buildings on site and the measurement of existing buildings although the diagram of the plotting attached to the latter seems to be very inadequately dimensioned in the light of the diagram of the survey on which it is based. The price of the book, however, seems rather prohibitive for students and seems likely to have an undesirable effect on the distribution of a useful book.

Painting and Decorating

A quite useful introduction to the subject is provided by *Modern Technique in Painting and Decorating* by John P. Parry (Longmans, Green, price 9s.). The purpose of the book is to provide the basis of a three-year course leading to the Intermediate Examination of the City and Guilds Institute but it would also be of benefit to many tradesmen. The early chapters deal with composition of paints, paint and colour mixing and ready-mixed products, for all of which the descriptions are brief but adequate for those with little or no training. The later chapters cover application, defects and some of the more specialized parts of the craft such as graining, gilding, lettering and spray painting. There are helpful chapters on paperhanging, tools and also one on business procedure. The book is very simply written and should be thoroughly understandable to all. It is a pity the stencil and texture designs leave so much to be desired in regard to good taste.

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

BEDFORDSHIRE C.C. (a) Improvements to The Limes, Biggleswade. (b) County Architect, Shire Hall, Bedford. (d) Jan. 15.

* * *

BIRMINGHAM C.C. (a) Airport terminal building in city centre. (b) City Engineer, Civic Centre, Birmingham, 1. (c) 2 Gns. (e) Jan. 22.

* * *

BOURNEMOUTH B.C. (a) 3 houses, Castle Lane; 1 house, Seafield Road, Tuckton; and 4 houses for police. (b) Borough Architect, Town Hall. (c) 2 Gns. (e) Jan. 26.

* * *

BRADFORD C.C. (a) Basement foundations and all work below structural floor level, excluding site works and drainage for junior school at Eccleshill site. (b) City Architect, Town Hall. (c) 2 Gns. (e) Jan. 29.

* * *

CANTERBURY C.C. (a) 18 flats, Spring Lane site. (b) City Architect, Municipal Buildings. (c) 2 Gns. (e) Jan. 26.

* * *

CROYDON B.C. (a) Extension to ambulance station, Stroud Green, Shirley Road. (b) Borough Engineer, Town Hall. (c) 2 Gns.

* * *

DURHAM C.C. (a) Primary School, Brown's Buildings, Birtley. Primary school, West View, Hartlepool. (d) County Architect, Court Lane. (d) Jan. 31.

* * *

DUDLEY CORPORATION. (a) Erection and completion of extensions to Dudley and Staffordshire Technical College. (b) A. C. H. Stillman, Green Hall, Lichfield Road, Stafford. (c) 4 Gns. (e) Jan. 20.

* * *

ESHER U.C. (a) Public convenience at Sandown Park. (b) Engineer and Surveyor, Council Offices. (c) 1 Gn. (e) Jan. 26.

* * *

GLAMORGANSHIRE C.C. (a) Additions to Mining and Technical Institute at Pontardawe. (b) County Architect, Glamorgan County Hall, Cardiff. (c) 2 Gns. (e) Jan. 31.

* * *

GREENWICH B.C. (a) 9 shops with 8 maisonettes and 5 flats at Plumbridge Street, Blackheath Hill site. (b) Town Clerk, The Town Hall, Greenwich High Road, S.E.10. (d) Jan. 31.

* * *

HERTFORD B.C. (a) External painting and structural repairs to The Castle, Hertford. (b) Borough Engineer, The Castle. (c) 1 Gn. each contract. (e) Jan. 26.

* * *

ISLE OF WIGHT C.C. (a) Extensions to Cowes Secondary School, new classroom block, etc., (b) County Architect, County Hall, Newport. (c) 3 Gns. by Jan. 15. (e) Feb. 11.

* * *

LINCOLN C.C. (a) 54 houses, Hartsholme Estate. (b) City Architect, Stamp End. (c) 2 Gns. (e) Feb. 5.

* * *

MAIDSTONE R.D.C. (a) 42 houses, Coxheath, Staplehurst, Bearsted. (b) Clerk, Council Offices, 26 Tonbridge Road. (c) 2 Gns.

* * *

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* * *

TENTERDEN B.C. (a) Temporary dwellings, Agricultural Camp, Ashford Road, Tenterden. (b) Borough Surveyor, Town Hall. (c) 2 Gns.

* * *

NORTH RIDING E.C. (a) New grammar school at Easingwold. (b) Messrs. Gollins, Melvin & Partners, 21 Russell Square, London, W.C.1. (e) Feb. 1.

* * *

PETERBOROUGH C.C. (a) 4 pairs of firemen's houses on Lawn Estate, Dogsthorpe Road. (b) County Surveyor, County Offices. (c) 2 Gns. (e) Jan. 29.

* * *

SITTINGBOURNE & MILTON U.C. (a) Erection of (1) 8 blocks of flats (32 units) and (2) 8 blocks of flats (32 units), Homewood Estate. (b) Council's Clerk, Council Offices, High Street, Sittingbourne. (c) 2 Gns. each contract. (d) Jan. 15.

* * *

SLOUGH B.C. (a) 15 aged persons' cottages, Oldway Lane, Cippenham. (b) Borough Engineer, Town Hall. (c) 2 Gns. (e) Jan. 29.

* * *

SOUTHEND-ON-SEA B.C. (a) Conversion of Tower House, Hadleigh Road, Leigh-on-Sea, into nursery. (b) Borough Engineer, Municipal Buildings. (c) £2. (e) Jan. 25.

* * *

STOURBRIDGE B.C. (a) Erection of (Group 1) 50 houses and (Group 2) 11 houses and 12 bungalows on Hodge Hill Estate, Wollescote. (b) Borough Engineer, The Council House. (d) Jan. 16.

* * *

WALLASEY B.C. (a) R.C. Secondary School at Ormonde. (b) F. X. Velarde, 3 Abercromby Square, Liverpool, 7. (c) 2 Gns. (e) Feb. 17.

* * *

WORCESTER C.C. (a) Erection of infants' department at Ronkswood primary school, comprising assembly hall, etc. (b) Director of Education, 4 Copenhagen Street. (c) 5 Gns. (d) Jan. 15.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

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BLACKBURN CORPORATION. (1) 78 houses. (2) Green Lane. (3) Corporation Building Department. (4) £97,813.

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BIRMINGHAM REGIONAL HOSPITAL BOARD. (1) Sisters' Home. (2) Dudley Road Hospital. (3) Maddocks & Walford Ltd., Tyburn Road, Birmingham. (4) £135,719.

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GREENWICH CORPORATION. (1) 136 flats. (2) Cherry Orchard site. (3) Gee, Walker & Slater Ltd., 100 Park Lane, W.1.

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GLAMORGANSHIRE. M.o.W. (1) Alterations and additions to first floor. (2) General Training Centre, Curran Road, Cardiff. (3) E. J. Smith & Co., 43 St. James's Street, Cardiff.

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HAMPSTEAD BOROUGH COUNCIL. (1) 112 flats. (2) Shoot-up-Hill. (3) F. Troy & Co. Ltd., 131 Great Suffolk Street, S.E.1. (4) £255,733.

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KENT. M.o.W. (1) Alterations and repairs to two school houses. (2) Duke of York's Schools, Dover. (3) C. Jenner & Son Ltd., 5-9 Bouvrie Road, Folkestone.

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LIVERPOOL CORPORATION. (1) Childwall Hall County College. (3) Tysons (Contractors) Ltd., Dryden Street, Liverpool. (4) £183,571.

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LONDON COUNTY COUNCIL. (1) Further 1,000 dwellings. (2) Aveley, Essex. (3) Unit Construction Co. Ltd., 34 St. James's Street, London, S.W.1.

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LONDON. M.o.W. (1) Reconstruction of Palm House and houses. (2) Hyde Park. (3) Galbraith Bros Ltd., 34 High Holborn, W.C.1.

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LONDON COUNTY COUNCIL. (1) War damage repairs etc. (2) Southwark Secondary School. (3) J. & C. Bowyer Ltd., London. (4) £48,674.

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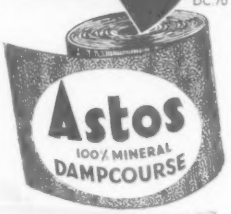

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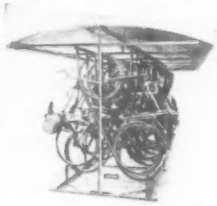

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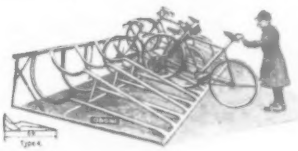

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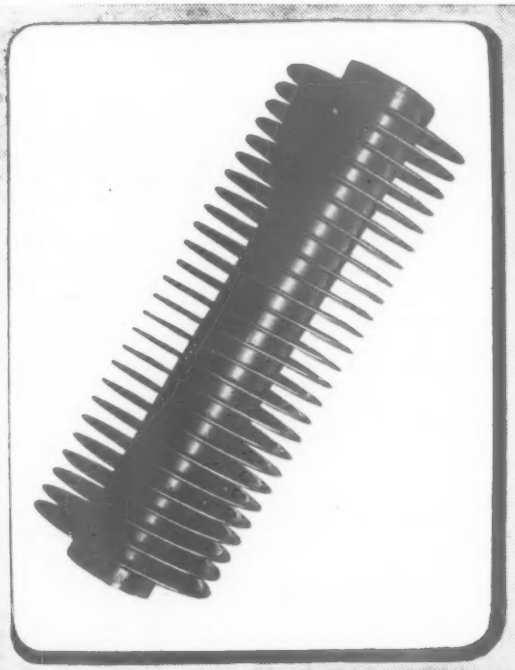

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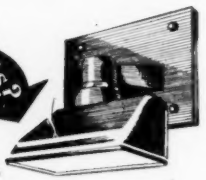

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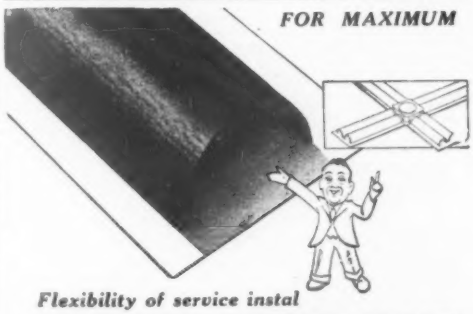

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The salary £450-£570, rising by annual increments of £15.

The appointment is subject to the Commissioners' Superannuation Scheme and the candidate selected will require to pass a medical examination before appointment.

Applications, stating age and qualifications, with full details of experience, together with copies of recent testimonials, should be lodged with the Harbour Engineer, 15 Regent Quay, Aberdeen, not later than 31st January, 1951.

Harbour Engineer's Office, Aberdeen.
30th December, 1950. [5130

BOROUGH OF WILLESDEN.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

THE Council invite applications for the appointment of a THIRD CLASS ARCHITECTURAL ASSISTANT on the temporary staff of the Borough Engineer and Surveyor's Department. The salary attaching to the post will be Administrative, Professional and Technical Grade III, namely, £450 per annum rising by £15 per annum to £495 per annum plus London Weighting.

Candidates must have served their Articles of pupilage or have worked in an architectural office for a minimum period of three years and have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognised schools of architecture.

The appointment, which will be terminable by one month's notice on either side, is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, giving age, experience, etc., accompanied by copies of not more than three testimonials, should be addressed to the undersigned, endorsed "Architectural Assistant" not later than 10 a.m. on Friday, 19th January, 1951.

It will be necessary for the successful candidate to provide his own housing accommodation as the Council is not in a position to assist.

Canvassing, directly or indirectly, will be deemed a disqualification.

(Signed) R. S. FORSTER, Town Clerk.
Town Hall, Dyne Road,
Kilburn, N.W.6.
21st December, 1950. [5118

WEST SUSSEX COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of a SENIOR ASSISTANT ARCHITECT at a salary in accordance with Grade VII A.P.T. Division (£635-£710 per annum) of the National Scales of Salaries.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than the 19th January, 1951.

T. C. HAYWARD,
Clerk of the County Council.
County Hall, Chichester. [5139

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF FINANCE.

CHIEF ARCHITECT'S BRANCH.

APPLICATIONS are invited for ASSISTANT ARCHITECT posts in the Ministry of Finance. Subject to a probationary period of two years, the posts are permanent and pensionable.

Remuneration: The scale is £500 x £25 - £750.

The entry point to this scale depends on age, viz. £500 at age 26 plus £25 for each year above that age. The upper entry point is, however, subject to a limit of £650 per annum.

Qualifications: Candidates must be Registered Architects by examination. In addition, they must have had at least two years' experience in an Architect's Office or Department in the preparation of working drawings for new buildings.

Preference will be given to candidates who have served in H.M. Forces in war-time, provided that such candidates can, or within a reasonable time will be able to, fill the posts efficiently.

Closing date for Receipt of Applications: Application forms may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast, to whom they must be returned with copies of two recent testimonials, so as to reach him not later than the 30th January, 1951. [5141

COUNTY BOROUGH OF EAST HAM.

BOROUGH ENGINEER'S DEPARTMENT.

APPLICATIONS are invited for the undermentioned appointments:—

SENIOR ARCHITECTURAL ASSISTANT (Grade A.P.T. VI). Salary £595 to £660 per annum.

ARCHITECTURAL ASSISTANT (Grade A.P.T. IV). Salary £480 to £525 per annum.

ARCHITECTURAL ASSISTANT (Grade A.P.T. III). Salary £450 to £495 per annum.

QUANTITY SURVEYOR (Grade A.P.T. IV) (Building Works). Salary £480 to £525 per annum.

ENGINEERING ASSISTANT (Grade A.P.T. V). Salary £520 to £570 per annum.

ENGINEERING ASSISTANT (Grade A.P.T. IV). Salary £480 to £525 per annum.

The appropriate London Weighting is paid in addition to the above salaries and salaries in excess of the minima of the Grades may be paid according to the qualifications and experience of successful candidates.

The Council will be prepared to consider applications for a subsistence allowance in appropriate cases from persons appointed should they be unable to obtain suitable housing accommodation.

Full particulars of the terms and conditions of appointment and form of application (which must be returned by Monday, 29th January, 1951) may be obtained from the undersigned.

Canvassing in any form will disqualify.

H. A. EDWARDS, Town Clerk.
Town Hall, East Ham, E.6.
January, 1951. [5143

THE RURAL DISTRICT COUNCIL OF GODSTONE.

ARCHITECTURAL ASSISTANTS.

APPLICATIONS are invited for the undermentioned appointments:—

1 ARCHITECTURAL ASSISTANT, salary A.P.T. Grade IV, £480-£15-£525.

1 ARCHITECTURAL ASSISTANT, salary A.P.T. Grade III, £450-£15-£495.

Travelling allowance in each case according to the National Scale.

Applications, stating age, qualifications and experience, together with copies of not more than two testimonials, should be delivered to the undersigned as early as possible.

F. W. WALPOLE, Clerk.
Council Offices, Oxted, Surrey.
8th January, 1951. [5149

THE LONDON COUNTY COUNCIL invites applications from ARCHITECTS in private practice for inclusion in a panel with a view to acting in a professional capacity for (a) reconstruction work at the Council's educational buildings, and (b) the erection of new schools. The works are urgent and will require immediate attention.

Applications should be forwarded to the Clerk of the Council (E.1), The County Hall, Westminster Bridge, S.E.1, not later than 17th February, 1951, and should be accompanied by a stamped addressed envelope and brief particulars of qualifications and experience. (1645). [5136

ARCHITECTURAL ASSISTANTS urgently required. Qualifications: At least three years' Architectural training and, preferably, some experience in an Architect's office. Ability to carry out under supervision working drawings of smaller works from prepared sketch plans, and elevations. Knowledge of subsidiary duties common to an Architect's office. Some testimonies already accepted and/or in a position to sit for the Intermediate Examination of the Royal Institute of British Architects.

The commencing salary at age 21 years is £283 per annum rising to a maximum of £495 per annum. Entering salary is increased by £20 per annum for each year of age above 21 years, subject to a maximum commencing salary of £420 per annum. The posts are in Cambridge. Although these posts are not established appointments, some of them have long term possibilities and competitions are held periodically to fill established vacancies.

Apply to Ministry of Works (R.D.I. Establishment), Block "A," Brooklands Avenue, Cambridge. [5138

ARCHITECTURAL APPOINTMENTS VACANT

ARCHITECTURAL Assistant required for private office in Carlisle.—Reply, stating age, training, experience, qualifications, present and required salary, to Box 7932, The Architect and Building News. [5146

ARCHITECTURAL Assistant, preferably qualified, required urgently in large general practice. Experience of commercial and industrial work important. Splendid opening for man with drive. — Apply, giving fullest particulars, to Box 7921, The Architect and Building News. [5140

JUNIOR Architectural Assistant required for Architect's office in London (W.1 area). Interesting work. Progressive appointment offered to keen individual. Salary according to experience.—Write, stating age, training and experience, to Box 7987, The Architect and Building News. [5151

SENIOR Architectural Assistant required for design of Offices, Canteens, Process Buildings, etc., for large industrial undertakings. Salary up to £800, according to experience.—Send details of age, experience and qualifications, if any, to Box 7930, The Architect and Building News. [5144

QUALIFIED Assistant Architect required. Must be good Draughtsman and experienced in both working drawings and sketch plans.—Apply, stating age, experience and salary required, to T. P. Bennett & Son, 43 Bloomsbury Square, London, W.C.1. [5137

SITUATIONS VACANT

BUILDING Draughtsman required, experienced in detailing and with good knowledge of Building Construction. This post is progressive and in the London area. Five-day week and pension scheme in operation.—Write, giving full details, to Box A.B.463, at 191 Gresham House, E.C.2. [5134

REPRESENTATIVE required for London and Southern Counties area by Pre-cast Concrete Company. Some knowledge of building trade and connection with Architects, Councils, etc. Salary, commission and expenses. Car provided. — Write Box 427, c/o George Murray (Advertising) Ltd., 184 Strand, London, W.C.2. [5142

ARCHITECTURAL Draughtsman required with experience of design of both domestic and industrial buildings. Salary about £500 according to age and experience, of which details should be sent to Box 7931, The Architect and Building News. [5145

ESTIMATOR Designer for Concrete Floors in S.W. London area, required by established Company. Must be up-to-date in estimating and design and preferably with practical experience in organising and controlling contracts. Excellent prospects for right man.—Write, giving full particulars in confidence, salary, etc., to Box 7980, The Architect and Building News. [5148

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ARCHITECTS' Indemnity Insurance effected. — Please write for Proposal Form to

E. J. SAXBY, Incorporated Insurance Broker, 37a Carfax, Horsham, Sussex. Tel. 990. [4980

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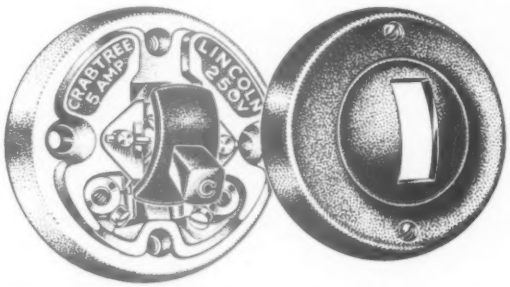

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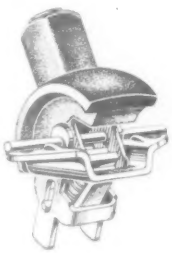

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